

**STATE OF FLORIDA
DEPARTMENT
OF
ENVIRONMENTAL PROTECTION**



Conditions of Certification

**City of Lakeland
C.D. McIntosh, Jr. Power Plant Units 3 & 5**

PA 74-06R

Modified March 6, 2013

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SECTION A: GENERAL CONDITIONS

SECTION A: GENERAL CONDITIONS

I. SCOPE

A. Pursuant to the Florida Electrical Power Plant Siting Act (PPSA), Sections 403.501-518, Florida Statutes (F.S.), and Chapter 62-17, Florida Administrative Code (F.A.C.), this certification is issued to The City of Lakeland as owner/operator and Licensee of C.D. McIntosh Power Plant (McIntosh). Subject to the requirements contained in these Conditions of Certification (Conditions), the City of Lakeland will operate a nominal 364 megawatt (MW) coal-fired electric generating unit (Unit 3), a nominal 370 MW natural gas-fired electric generating unit (Unit 5), a 46 mile long 230 kV transmission line running from McIntosh to the Stanton Energy Center in Orange County, FL, and other associated facilities as described in the site certification application (SCA). The electric generating units and associated facilities are located on a 530-acre site at 3030 East Lake Parker Drive in Lakeland, Polk County, Florida. The UTM coordinates are: Zone 17, 409.0 km East, 3106.2 km North; and the latitude/longitude coordinates are: 28°04'50" North/81°55'32" West. The Department does not intend, solely by the incorporation of these General Conditions, to require the retrofitting of existing certified facilities.

B. The certified facility includes but is not limited to the following associated facilities:

	<u>Facilities/Activities/Systems</u>	<u>Site Location</u>
<u>1</u>	<u>Stormwater System</u>	<u>Power Island *, Warehouse</u>
<u>2</u>	<u>U3-Scrubber</u>	<u>Power Island - Unit 3</u>
<u>3</u>	<u>U-3&5 SCR & Ammonia Bullet</u>	<u>Power Island – Units 3 & 5</u>
<u>4</u>	<u>Limestone Storage and Handling System</u>	<u>Unit -3 (ball mill)</u>
<u>5</u>	<u>CSI Facility</u>	<u>Unit – 3 (thickener & vacuum filters)</u>
<u>6</u>	<u>Stack Out Pad and Truck Loading</u>	<u>Combustion By-Products Storage Facility (landfill area)</u>
<u>7</u>	<u>Combustion By-Products Storage Facility</u>	<u>Landfill area</u>
<u>8</u>	<u>Coal Unloading - Train Trestle</u>	<u>Coal yard</u>
<u>9</u>	<u>Coal Handling System (conveyers and crusher)</u>	<u>Coal yard</u>
<u>10</u>	<u>Coal Storage Area</u>	<u>Coal yard</u>
<u>11</u>	<u>Cooling Tower Facility Units 3 & 5 (chemical feed tanks)</u>	<u>Units 3 & 5</u>
<u>12</u>	<u>Process Water Ponds</u>	<u>Unit 3 & All units (non certified units)</u>
<u>13</u>	<u>Process Water Treatment System (PWTS)</u>	<u>Unit 3 & All units (non certified units)</u>
<u>14</u>	<u>U-5 Diesel Storage Tank</u>	<u>Unit 5</u>
<u>15</u>	<u>Back-up Water Supply for Cooling Towers</u>	<u>Units 3 & 5</u>

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<u>16</u>	<u>Crom Tank System</u>	<u>Coal yard area</u>
<u>17</u>	<u>Stack Out Pad Sed Pond</u>	<u>Combustion By-Products Storage Facility (landfill area)</u>
<u>18</u>	<u>Coal Yard Sump</u>	<u>Coal Yard</u>
<u>19</u>	<u>Coal Truck Unloading Facility</u>	<u>Coal Yard</u>
<u>20</u>	<u>U-3 - Diesel Tank</u>	<u>Fuel Tank Storage</u>
<u>21</u>	<u>Fire Water System (diesel pumps and tanks)</u>	<u>Process Water Pond Area</u>
<u>22</u>	<u>Unit 3 and Unit 5 Substations</u>	<u>Unit 3 & 5</u>
<u>23</u>	<u>Unit 3 Precipitator</u>	<u>Unit 3</u>
<u>24</u>	<u>Chemical Feed Tanks</u>	<u>Unit 3 & Unit 5</u>

C. These Conditions, unless specifically amended or modified, are binding upon the Licensee and shall apply to the construction, operation and maintenance of the certified facility. If a conflict should occur between the design criteria of this certified facility and the Conditions, the Conditions shall prevail unless amended or modified. In any conflict between any of these Conditions, the more specific condition governs.

D. Within 60 days after completion of construction of the electrical power plant as defined by 403.503(14), F.S., but excluding off-site linear and non-linear associated facilities, the Licensee shall provide to the Department in .pdf format: a survey map signed by a professional land surveyor, or acceptable equivalent documentation such as an official legal description, delineating the boundaries of the site as defined by Section 403.503(28), F.S., and an aerial photograph delineating the boundaries of the site. The survey map and aerial photograph shall be identified as the site delineation and attached hereto as part of Attachment A (Maps).

The Licensee shall notify the Department of any change to the site boundary depicted in the site delineation in Attachment A (Maps). The notification shall be accompanied by an updated land survey map (or legal description) and aerial photograph delineating the new boundaries of the site for review by the Department. Absent the above description/delineation of the site, the Department will consider the perimeter fence line of the property on which the electrical power plant's generating facility and on-site support facilities are located to be the boundaries of the site.

E. If both certified and uncertified facilities lie within the boundaries of the site, the Licensee shall also comply with the requirements of this paragraph. Within 60 days after completion of construction of the plant and on-site associated facilities, but excluding off-site linear and non-linear associated facilities, the Licensee shall provide to the Department in .pdf format: a survey map signed by a professional land surveyor, or acceptable equivalent documentation such as an official legal description, delineating the boundaries of the certified areas within the site; and an aerial photograph delineating the boundaries of the certified areas within the site. The boundaries of the certified areas within the site shall include both the certified electrical power plant's generating facilities as defined in Section 403.503(28), F.S., and its on-site certified associated facilities (including on-site linear facilities) as defined by Section 403.503(7), F.S. The survey map and the aerial photograph shall be known as the Delineation of the certified area of the site and attached hereto as part of Attachment A (Maps).

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F. Within 120 days after completion of construction of the off-site associated non-linear facilities, the Licensee shall provide to the Department in .pdf format; a survey map signed by a professional land surveyor, or acceptable equivalent documentation such as an official legal description, delineating the boundaries of the certified areas for each off-site non-linear certified facility; and an aerial photograph delineating the boundaries of the certified areas for each off-site non-linear certified facility. The survey map(s) and aerial photographs shall be known as Delineation of the Certified Areas of the Off-Site Non-linear Facilities and attached hereto as part of Attachment A (Maps).

G. Within 180 days after completion of construction of any new associated off-site linear facilities, as defined by Section 403.503(7), F.S., the Licensee shall provide; an aerial photograph(s)/map(s) at a scale of at least 1:400, or acceptable equivalent documentation such as an official legal description or survey map(s) signed by a professional land surveyor, delineating the boundaries of the certified area(s), following acquisition of all necessary property interests and the corridor narrowing as described in Section 403.503(11), F.S., which shall be known as the Delineation of Off-Site Linear Facilities and attached as part of Attachment A (Maps).

Following any post-certification approvals that require a change to the boundaries of the certified area(s) depicted in the delineation of off-site linear facilities in Attachment A (Maps), the Licensee shall submit an updated aerial photograph/map, survey map or legal description.

[Sections 403.511, 403.5113, 403.531, and 403.9416, F.S.; subsections 62-4.160(1-2) and 62-17.205(2), F.A.C.]

II. APPLICABLE DEPARTMENT RULES

The construction, operation and maintenance of the certified facility shall be in accordance with all applicable non-procedural provisions of Florida Statutes and Florida Administrative Codes, including, but not limited to, the applicable non-procedural portions of the following regulations, except to the extent a variance, exception, exemption or other relief is granted in the final order of certification or in a subsequent modification to the Conditions, under any federal permit or as otherwise provided under Chapter 403:

Florida Administrative Codes:

- 18-2 (Management of Uplands Vested in the Board of Trustees)
- 18-14 (Administrative Fines for Damaging State Lands)
- 18-20 (Aquatic Preserves)
- 18-21 (Sovereign Submerged Lands Management)
- 62-4 (Permits)
- 62-17 (Electrical Power Plant Siting)
- 62-25 (Regulation of Stormwater Discharge)
- 62-40 (Water Resource Implementation Rule)
- 62-150 (Hazardous Substance Release Notification)
- 62-160 (Quality Assurance)
- 62-204 (Air Pollution Control-General Provisions)
- 62-210 (Stationary Sources-General Requirements)
- 62-212 (Stationary Sources-Preconstruction Review)
- 62-213 (Operation Permits for Major Sources of Air Pollution)
- 62-214 (Requirements for Sources Subject to the Federal Acid Rain Program)

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62-256 (Open Burning)
62-296 (Stationary Sources-Emission Standards)
62-297 (Stationary Sources-Emission Monitoring)
62-301 (Surface Waters of the State)
62-302 (Surface Water Quality Standards)
62-304 (Total Maximum Daily Loads)
62-312 (Dredge and Fill Activities)
62-330 (Environmental Resource Permitting)
62-340 (Delineation of the Landward Extent of Wetlands and Surface Waters)
62-341 (Noticed General Environmental Resource Permits)
62-343 (Environmental Resource Permit Procedures)
62-345 (Uniform Mitigation Assessment Method)
62-346 (Environmental Resource Permitting in Northwest)
62-520 (Groundwater Classes, Standards and Exemptions)
62-522 (Groundwater Permitting and Monitoring Requirements)
62-528 (Underground Injection Control)
62-531 (Water Well Contractor Licensing Requirements)
62-532 (Water Well Permitting and Construction Requirements)
62-550 (Drinking Water Standards, Monitoring and Reporting)
62-555 (Permitting, Construction, Operation, and Maintenance of Public Water Systems)
62-560 (Requirements for Public Water Systems That Are Out of Compliance)
62-600 (Domestic Wastewater Facilities)
62-601 (Domestic Wastewater Treatment Plant Monitoring)
62-604 (Collection Systems and Transmission Facilities)
62-610 (Reuse of Reclaimed Water and Land Application)
62-620 (Wastewater Facility and Activities Permitting)
62-621 (Generic Permits)
62-650 (Water Quality Based Effluent Limitations)
62-660 (Industrial Wastewater Facilities)
62-699 (Treatment Plant Classification and Staffing)
62-701 (Solid Waste Management Facilities)
62-710 (Used Oil Management)
62-730 (Hazardous Waste)
62-740 (Petroleum Contact Water)
62-761 (Underground Storage Tank Systems)
62-762 (Aboveground Storage Tank Systems)
62-769 (Florida Petroleum Liability and Restoration Insurance Program)
62-770 (Petroleum Contamination Site Clean-Up Criteria)
62-780 (Contaminated Site Clean-Up Criteria)
62-807 (Natural Gas Transmission Pipeline)
62-814 (Electric and Magnetic Fields)
64E-6 (Standards for Onsite Sewage Treatment and Disposal Systems)
40D-2 (Water Use Permit)
40D- 4 (Individual Environmental Resource Permits)
40D-8 (Water Levels and Rates of Flow)

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40D-40 (Standard General Environmental Resource Permits)
Basis of Review for ERP Applications

III. REVISIONS TO DEPARTMENT STATUTES AND RULES

A. The Licensee shall comply with rules adopted by the Department subsequent to the issuance of the certification under the PPSA which prescribe new or stricter criteria, to the extent that the rules are applicable to electrical power plants. Except when express variances, exceptions, exemptions, or other relief have been granted, subsequently adopted Department rules which prescribe new or stricter criteria shall operate as automatic modifications to the certification.

B. Upon written notification to the Department, the Licensee may choose to operate the certified electrical power plant in compliance with any rule subsequently adopted by the Department which prescribes criteria more lenient than the criteria required by the terms and conditions in the certification which are not site-specific.

[Section 403.511(5)(a) and (b), F.S.; subsection 62-4.160(10), F.A.C.]

IV. DEFINITIONS

The meaning of terms used herein shall be governed by the applicable definitions contained in Chapters 373 and 403, F.S., and any regulation adopted pursuant thereto. In the event of any dispute over the meaning of a term used in these Conditions which is not defined in such statutes or regulations, such dispute shall be resolved by reference to the most relevant definitions contained in any other state or federal statute or regulation or, in the alternative by the use of the commonly accepted meaning. As used herein, the following shall apply:

A. “Application” or “SCA” means the documents required by the Department to be filed to initiate a certification review and evaluation, including the initial document filing, amendments, and responses to requests from the Department for additional data and information. For purposes of this license, the site certification application shall also include materials submitted for post-certification amendments, petitions for modification to the Conditions of Certification, as well as supplemental applications.

B. “Associated Facilities” is defined by Section 403.503(7), F.S.

C. “Certified Area” means the area within the site in which the certified facilities are located. For linear facilities this term shall mean the area encompassed by the boundaries of the certified easements and/or ROWs.

D. “Certified Facility” or “Certified Facilities” means the certified electrical power generation facilities and all on- or off-site associated structures including but not limited to: steam generating units, transformers, substations, fuel and water storage tanks, air and water pollution control equipment, storm water control ponds and facilities, cooling towers, and related structures. This term shall also mean linear and associated facilities, including but not limited to: transmission lines, natural gas pipelines, and compressor stations.

E. “DEO” means the Florida Department of Economic Opportunity.

F. “DEM” shall mean the Florida Division of Emergency Management.

G. “DEP” or “Department” means the Florida Department of Environmental Protection.

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- H. “DHR” means the Florida Department of State, Division of Historical Resources.
- I. “DOT” means the Florida Department of Transportation.
- J. “Emergency conditions” or “Emergency reporting” means urgent circumstances involving potential adverse consequences to human life or property as a result of weather conditions or other calamity.
- K. “Feasible” means reasonably achievable considering a balance of land use impacts, environmental impacts, engineering constraints, and costs.
- L. “FWC” means the Florida Fish and Wildlife Conservation Commission.
- M. “Licensee” means an applicant that has obtained a certification order for the subject project.
- N. “NPDES permit” means a federal National Pollutant Discharge Permit System permit issued by DEP in accordance with the federal Clean Water Act.
- O. “PSD permit” means a federal Prevention of Significant Deterioration air emissions permit issued by DEP in accordance with the federal Clean Air Act.
- P. “CFRPC” means the Central Florida Regional Planning Council.
- Q. “ROW” means the right-of-way to be selected by the Licensee within the certified corridor in accordance with the Conditions of Certification and as defined in Section 403.503(27), F.S.
- R. “Site” means any proposed location within which will be located an electrical power plant's generating facility and onsite support facilities, or an alteration or addition of electrical generating facilities and onsite support facilities resulting in an increase in generating capacity, including offshore sites within state jurisdiction.
- S. “Surface Water Management System” or “System” means a stormwater management system, dam, impoundment, reservoir, appurtenant work, or works, or any combination thereof. The terms “surface water management system” or “system” include areas of dredging or filling, as those terms are defined in Sections 373.403(13) and (14), F.S.
- T. “SWFWMD” means the Southwest Florida Water Management District.
- U. “Title V permit” means a federal permit issued by DEP in accordance with Title V provisions of the federal Clean Air Act.

V. DEPARTMENT PERMITS UNDER FEDERAL PROGRAMS

This certification is not a waiver of any other Department approval that may be required under federally delegated or approved programs. The provisions of the following federal permits shall be conditions of this certification to the extent the provisions of those permits apply to the certified facility(ies). The Licensee shall comply with the applicable provisions and limitations set forth in the permits listed below, and as those provisions may be modified, amended, or renewed in the future by the Department. The Department may consider a violation of any of these permits as a violation of this license.

SECTION A: GENERAL CONDITIONS

A. Air

All Air Construction Permits and Title V Air Operation Permits in force for the Certified parts of facility ID 1050004 are incorporated by reference herein as part of these Conditions. The Air Construction Permits and Title V Air Operation Permits can be found at this web link using the facility ID number listed above:

<http://appprod.dep.state.fl.us/air/emission/apds/default.asp>.

[Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-214, 62-296, and 62-297, F.A.C.]

B. Water

1. NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities

Any storm water discharges associated with construction activities on the site shall be in accordance with all applicable provisions of Chapter 62-621, F.A.C. Prior to commencing construction activities on the site that:

- contribute to stormwater discharges to surface waters of the State or into a municipal separate storm sewer system (MS4); and
- disturb one or more acres of land (less than one acre if the activity is part of a larger common plan of development);

a Generic Permit for Stormwater Discharge from Large and Small Construction Activities must be obtained as applicable.

[Section 403.0885, F.S.; Rule 62-621.300, F.A.C.]

2. NPDES Multi-Sector Generic Permit for Stormwater Discharge Associated with Industrial Activity.

Any storm water discharges associated with industrial activity shall be in accordance with all applicable provisions of Chapter 62-621, F.A.C. For industrial activities at the site that result in a discharge of stormwater to surface waters of the State or into a municipal separate storm sewer system (MS4), and fall under any one of the 11 categories of industrial activities identified in 40 CFR § 122.26(b)(14), a Multi-Sector Generic Permit for Stormwater Discharge Associated with Industrial Activity (MSGP) shall be obtained as applicable.

[Section 403.0885, F.S.; Rule 62-621.300, F.A.C.]

3. NPDES Generic Permit for Discharge of Produced Ground Water from any Non-Contaminated Site Activity

Prior to discharge of produced ground water from any non-contaminated site activity which discharges by a point source to surface waters of the State, as defined in Chapter 62-620, F.A.C., the Licensee must first obtain coverage under the Generic Permit for Discharge of Produced Ground Water From any Non-Contaminated Site Activity. Similarly, if the activity involves a point source discharge of ground water from a petroleum contaminated site, the Licensee must obtain coverage under the Generic Permit for discharge from petroleum contaminated sites. Before discharge of ground water can occur from such sites, analytical tests

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on samples of the proposed untreated discharge water shall be performed as required by Rule 62-621.300, F.A.C., to determine if the activity can be covered by either permit.

If the activity cannot be covered by either generic permit, the Licensee shall apply for an individual wastewater permit at least ninety (90) days prior to the date discharge to surface waters of the State is expected. No discharge to surface water is permissible without an effective permit.

[Section 403.0885, F.S.; Rule 62-621.300, F.A.C.]

VI. DESIGN AND PERFORMANCE CRITERIA

Certification, including these Conditions, is predicated upon preliminary designs, concepts, and performance criteria described in the site SCA or in testimony and exhibits in support of certification. Final engineering design will be consistent and in substantial compliance with the preliminary information described in the SCA or as explained at the certification hearing (if any). Conformance to those criteria, unless specifically modified in accordance with Sections 403.516, F.S., and Rule 62-17.211, F.A.C., is binding upon the Licensee in the design, construction, operation and maintenance of the certified facility.

[Sections 403.511(2)(a) and 403.516, F.S.; Rules 62-4.160(2) and 62-17.211, F.A.C.]

VII. NOTIFICATION

A. If, for any reason, the Licensee does not comply with or will be unable to comply with any condition or limitation specified in this license, the Licensee shall immediately provide the appropriate DEP District Office with the following information:

1. A description of and cause of noncompliance; and
2. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The Licensee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this certification.

All notifications which are made in writing shall additionally be immediately provided to the Siting Coordination Office (SCO) via email to SCO@dep.state.fl.us.

[subsection 62-4.160(8), F.A.C.]

B. The Licensee shall promptly notify the SCO in writing (email acceptable) of any previously submitted information concerning the certified facility that is later discovered to be inaccurate.

[subsection 62-4.160(15), F.A.C.]

C. Within 60 days after certification of an associated linear facility the Licensee shall file a notice of the certified route with the Department and the clerk of the circuit court for each county through which the corridor will pass.

The notice shall consist of maps or aerial photographs in the scale of 1:24,000 which clearly show the location of the certified route and shall state that the certification of the corridor will result in the acquisition of rights-of-way within the corridor. The Licensee shall

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certify to the Department and clerk that all lands required for the transmission line rights-of-way within the corridor have been acquired within such county.

[Section 403.5112, F.S.]

VIII. REPLACEMENT FOR RESTORATION OF SYSTEM INTEGRITY

A. The Department will use its enforcement discretion when evaluating violations that result from operating the certified facility under emergency conditions. During and after the emergency conditions, the Licensee must use due diligence to bring the facility back into compliance as soon as possible. In addition, the Licensee must use its best efforts and best management practices to minimize adverse environmental impacts. The Licensee shall notify the SCO and the appropriate DEP District Office when the emergency condition has ended. Furthermore, the Licensee must include all monitoring data, which would otherwise be required under normal operating circumstances, recorded during emergency conditions when submitting reports as required by these conditions. Any exceedances and/or violations recorded during emergency conditions shall be reported as such, but the Department acknowledges that it intends to use its enforcement discretion during this timeframe. This acknowledgement by the Department does not constitute a waiver or variance from any requirements of any federal permit. Relief from any federal agency must be separately sought.

[Sections 403.511, F.S.]

IX. CONSTRUCTION PRACTICES

A. Local Building Codes

Subject to the conditions set forth herein, this certification constitutes the sole license of the state and any agency as to the approval of the location of the site and any associated facility and the construction and operation of any certified facility. The licensee is not required to obtain building permits for certified facilities. However, this certification shall not affect in any way the right of any local government to charge appropriate fees or require that construction of installations used by the electric utility that are not an integral part of a generating plant, substation, or control center (such as office buildings, warehouses, garages, machine shops, and recreational buildings) be in compliance with applicable building construction codes. Such fees and compliance with such construction codes are outside the scope of this certification.

[Section 403.511(4), F.S.]

B. Open Burning

Prior to open burning in connection with land clearing, the Licensee shall seek authorization from the Florida Forest Service in accordance with the requirements of Chapters 62-256 and 5I-2, F.A.C.

[Chapters 5I-2 and 62-256, F.A.C.]

C. Sanitary Wastes

Disposal of sanitary wastes from construction toilet facilities shall be in accordance with applicable regulations of the Department and appropriate local health agency.

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D. Flood Control Protection

The certified facilities shall be constructed in a manner that complies with any applicable non-procedural County flood protection requirements.

E. Vegetation

For areas located in any Florida Department of Transportation (DOT) ROW, Chapter 7 of the Florida DOT *Utility Accommodation Manual* located at this web address <http://www2.dot.state.fl.us/proceduraldocuments/procedures/bin/710020001/Chapter-7.pdf> shall serve as guidelines for best management practices.

F. Existing Underground Utilities

The Licensee must follow all applicable portions of the Underground Facility Damage Prevention and Safety Act, Chapter 556, F.S. The Licensee shall provide the affected local government and the SCO with copies of valid tickets obtained from Sunshine State One Call of Florida upon request. Tickets shall be available for request until the underground work is complete.

[Chapter 556, F.S.]

G. Electric and Magnetic Fields (EMF)

Any transmission lines that are associated facilities shall comply with the applicable requirements of Chapter 62-814, F.A.C.

[Chapter 62-814, F.A.C.]

H. Radio and Television Interference

The Licensee shall investigate all complaints and take appropriate corrective action for impacts to radio or television reception caused by the proposed transmission line.

[Section 403.531, F.S.]

I. Existing Wells

Any existing wells to be impacted in the path of construction that will no longer be used shall be abandoned by a licensed well contractor. All abandoned wells shall be filled and sealed in accordance with subsection 62-532.500(5), F.A.C., or with the rules of the authorizing agency, or consistent with these Conditions.

[subsection 62-532.500(5), F.A.C.]

J. Abandonment of Existing Septic Tanks

Any existing septic tanks to be impacted by construction and that will no longer be used shall be abandoned in accordance with Rule 64E-6.011, F.A.C., unless these Conditions provide otherwise.

[Chapter 64E-6, F.A.C.]

X. RIGHT OF ENTRY

A. Upon presentation of credentials or other documents as may be required by law, the Licensee shall allow authorized representatives of the Department or other agencies with jurisdiction over a portion of the certified facility:

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1. At reasonable times, to enter upon the certified facility in order to monitor activities within their respective jurisdictions for purposes of assessing compliance with this certification; or

2. During business hours, to enter the Licensee's premises in which records are required to be kept under this certification; and to have access to and copy any records required to be kept under this certification.

B. When requested by the Department, on its own behalf or on behalf of another agency with regulatory jurisdiction, the Licensee shall within 10 working days, or such longer period as may be mutually agreed upon by the Department and the Licensee, furnish any information required by law, which is needed to determine compliance with the certification.

[paragraph 62-4.160(7)(a) and subsection 62-4.160(15), F.A.C.]

XI. DISPUTE RESOLUTION

A. General

If a situation arises in which mutual agreement between either the Department and the Licensee, or the Department and an agency with substantive regulatory jurisdiction over a matter cannot be reached, the Department can act as a facilitator in an attempt to resolve the issue. If the dispute is not resolved in this initial informal meeting, Licensee may request a second informal meeting in which both Licensee and the agency with substantive regulatory jurisdiction over the matter at issue can participate in an attempt to resolve the issue. If, after such meetings, a mutual agreement cannot be reached between the parties, then the matter shall be referred to the Division of Administrative Hearings (DOAH) for disposition in accordance with the provisions of Chapter 120, F.S. The Licensee or the Department may request DOAH to establish an expedited schedule for the processing of such a dispute. Any filing with DOAH shall state with particularity the specific project and geographic location to which the dispute relates. Work unrelated to the specific project and in areas other than the location to which the dispute relates will not be affected by the dispute.

B. Modifications

If written objections are filed regarding a modification, and the objections address only a portion of a requested modification, then the department shall issue a Final Order approving the portion of the modification to which no objections were filed, unless that portion of the requested modification is substantially related to or necessary to implement the portion to which written objections are filed.

C. Post-Certification Submittals

If it is determined, after assessment of a post-certification submittal, that compliance with the Conditions will not be achieved for a particular portion of a submittal, the Department may make a separate assessment of other portions of the submittal, unless those portions of the submittal are substantially related to or necessary to implement that portion for which it has been determined that compliance with the Conditions will not be achieved.

[Sections 120.57, F.S. and Rule 62-17.211, F.A.C.]

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XII. SEVERABILITY

The provisions of this certification are severable, and if any provision of this certification or the application of any provision of this certification to any circumstance is held invalid, the remainder of the certification or the application of such provision to other circumstances shall not be affected thereby.

XIII. ENFORCEMENT

A. The terms, conditions, requirements, limitations and restrictions set forth in these Conditions are binding and enforceable pursuant to Sections 403.141, 403.161, 403.514, 403.727, and 403.859 through 403.861, F.S., as applicable. Any noncompliance by the Licensee with these Conditions constitutes a violation of Chapter 403, F.S., and is grounds for enforcement action, license termination, license revocation, or license revision. The Licensee is placed on notice that the Department may review this certification periodically and may initiate enforcement action for any violation of these Conditions. Abandonment of the certified facility will be considered grounds for enforcement action.

B. All records, notes, monitoring data and other information relating to the construction or operation of the certified facility which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the certified facility and arising under the Florida Statutes or Department rules, subject to the restrictions in Sections 403.111 and 403.73, F.S. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

[Sections 403.121, 403.131, 403.141, 403.151, 403.161, 403.514, 403.533, and 403.9419, F.S.; subsections 62-4.160(1) and 62-4.160(9), F.A.C.]

XIV. REVOCATION OR SUSPENSION

The certification shall be final unless revised, revoked or suspended pursuant to law. This certification may be suspended or revoked pursuant to Sections 403.512, 403.532, and 403.9425, F.S. This license is valid only for the specific processes and operations identified in the SCA and approved in the final order of certification and indicated in the testimony and exhibits in support of certification. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this approval may constitute grounds for revocation and enforcement action by the Department. Any enforcement action, including suspension and revocation, shall only affect the portion(s) of the certified facility that are the cause of such action, and other portions of the certified facility shall remain unaffected by such action.

[Sections 403.512, F.S.; subsection 62-4.160(2), F.A.C.]

XV. REGULATORY COMPLIANCE

As provided in Sections 403.087(7) and 403.722(5), F.S., the issuance of this certification does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This certification is not a waiver of or approval of any other Department license/permit that may be required for other aspects of the certified facility which are not addressed in this license. This certification does not relieve the

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Licensee from liability for harm or injury to human health or welfare, animal, or plant life, or public or private property caused by the construction or operation of this certified facility, or from penalties therefore.

[subsections 62-4.160(3) and 62-4.160(5), F.A.C.]

XVI. CIVIL AND CRIMINAL LIABILITY

Except to the extent a variance, exception, exemption or other relief is granted in the final order of certification, in a subsequent modification to these Conditions, or as otherwise provided under Chapter 403, F.S., this certification does not relieve the Licensee from civil or criminal penalties for noncompliance with any condition of this certification, applicable rules or regulations of the Department, or any other state statutes or regulations which may apply.

[Sections 403.141, 403.161, and 403.511, F.S.]

XVII. USE OF STATE LANDS

A. The issuance of this license conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

B. If any portion of the certified facility is located on sovereign submerged lands, state-owned uplands, or within an aquatic preserve, then the Licensee must comply with the applicable portions of Chapters 18-2, 18-20, and 18-21, F.A.C., and Chapters 253 and 258, F.S. If any portion of the certified facility is located on sovereign submerged lands, the Licensee must submit section G of the Joint Application for Environmental Resource Permits to the Department prior to construction. If any portion of the certified facility is located on state-owned uplands, the Licensee must submit an Upland Easement Application to the Department prior to construction.

C. If a portion of the certified facility is located on sovereign submerged lands or state-owned uplands owned by the Board of Trustees of the Internal Improvement Trust Fund, pursuant to Article X, Section 11 of the Florida Constitution, then the proposed activity on such lands requires a proprietary authorization. Under such circumstances, the proposed activity is not exempt from the need to obtain a proprietary authorization. The Department has the responsibility to review and take action on requests for proprietary authorization in accordance with Rules 18-2.018 or 18-21.0051, F.A.C.

D. The Licensee is hereby advised that Florida law states: “No person shall commence any excavation, construction, or other activity involving the use of sovereign or other state lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund or the Department of Environmental Protection under Chapter 253, F.S., until such person has received from the Board of Trustees of the Internal Improvement Trust Fund the required lease, license, easement, or other form of consent authorizing the proposed use.” Pursuant to Chapter 18-14, F.A.C., if such work is done without consent, or if a person otherwise damages state land or products of state land, the Board of Trustees may levy administrative fines of up to \$10,000 per offense.

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E. The terms, conditions, and provisions of any required lease or easement issued by the State shall be met. Any construction activity associated with the certified facility shall not commence on sovereign submerged lands or state owned uplands, title to which is held by the Board of Trustees of the Internal Improvement Trust Fund, until all required lease or easement documents have been executed.

[Chapters 253 and 258, and Sections 403.511, 403.531, and 403.9416, F.S.; Chapter 3.1.1. of the B.O.R.; Chapters 18-2, 18-14, 18-21, 62-340, and subsections 62-343.900(1) and 62-4.160(4), F.A.C.; Upland Easement Application and Section G of the Environmental Resource Permit Application Form.]

XVIII. PROCEDURAL RIGHTS

Except as specified in Chapter 403, F.S., or Chapter 62-17, F.A.C., no term or condition of certification shall be interpreted to preclude the post-certification exercise by any party of whatever procedural rights it may have under Chapter 120, F.S., including those related to rule-making proceedings.

[Sections 403.511(5)(c)), F.S.]

XIX. AGENCY ADDRESSES FOR POST-CERTIFICATION SUBMITTALS AND NOTICES

Where a condition requires post-certification submittals and/or notices to be sent to a specific agency, the following agency addresses shall be used unless the Conditions specify otherwise or unless the Licensee and the Department are notified in writing of an agency's change in address for such submittals and notices:

Florida Department of Environmental Protection
Siting Coordination Office, MS 48
3900 Commonwealth Blvd.
Tallahassee, FL 32399-3900

Florida Department of Environmental Protection
Southwest District Office
13051 N Telecom Parkway
Temple Terrace, FL 33637-0926

Florida Department of Community Affairs
Office of the Secretary
2555 Shumard Oak Blvd.
Tallahassee, FL 32399-2100

Florida Fish & Wildlife Conservation Commission
Office of Policy and Stakeholder Coordination
620 South Meridian Street
Tallahassee, FL 32399-1600

Florida Department of Transportation
District Administration

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605 Suwannee Street
Tallahassee, FL 32399-0450

Florida Department of Agriculture and Consumer Services
Division of Forestry
3125 Conner Boulevard
Tallahassee, FL 32399-1650

Central Florida Regional Planning Council
Office of the Executive Director
555 East Church Street
Bartow, FL 33830

Southwest Florida Water Management District
Office of General Counsel
2379 Broad Street
Brooksville, FL 34604-6899

Florida Department of State
Division of Historical Resources
500 S. Bronough Street
Tallahassee, FL 32399-0250

Polk County
Office of General Council
Post Office Box 9000
Bartow, FL 33831-9000

[Section 403.511, 403.531, and 403.9416, F.S.]

XX. PROCEDURES FOR POST-CERTIFICATION SUBMITTALS

A. Purpose of Submittals

Conditions which provide for the post-certification submittal of information to DEP or other agencies by the Licensee are for the purpose of facilitating the agencies' monitoring of the effects arising from the location of the certified facility and the construction and maintenance of the certified facility. This monitoring is for DEP to assure, in consultation with other agencies with applicable regulatory jurisdiction, continued compliance with these Conditions, without further agency action. A submittal of information or determination of compliance pursuant to a post-certification submittal under this condition does not provide a point of entry for a third party.

B. Filings

All post-certification submittals of information by Licensee are to be filed with the SCO, the DEP District Office(s), and any other agency that is entitled to receive a submittal pursuant to these Conditions. All filings with the SCO shall be submitted in electronic .pdf format only, unless otherwise requested. Each submittal shall clearly identify the certified

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facility name, PA#, and the condition number/s (i.e. Section X, Condition XX.y.(z)) requiring the submittal. As required by Section 403.5113(2), F.S., each post-certification submittal will be reviewed by each agency with regulatory authority over the matters addressed in the submittal on an expedited and priority basis.

[Section 403.5113, F.S., subsection 62-17.191(3), F.A.C.]

C. Completeness

DEP shall review each post-certification submittal for completeness. This review may include consultation with the other agency/ies receiving the post-certification submittal with regulatory jurisdiction over the matter addressed in the submittal. DEP's finding of completeness shall specify the area of the certified facility affected, and shall not delay further processing of the post-certification submittal for non-affected areas.

If any portion of a post-certification submittal is found to be incomplete, the Licensee shall be so notified. Failure to issue such a notice within 30 days after filing of the submittal shall constitute a finding of completeness. Subsequent findings of incompleteness, if any, shall address only the newly filed information.

[subparagraph 62-17.191(1)(c) 2, F.A.C.]

D. Interagency Meetings

DEP may conduct an interagency meeting with other agencies that received a post-certification submittal. The purpose of such an interagency meeting shall be for the agencies with regulatory jurisdiction over the matters addressed in the post-certification submittal to discuss whether compliance with these Conditions has been provided. Failure of DEP to conduct an interagency meeting or failure of any agency to attend an interagency meeting shall not be grounds for DEP to withhold a determination of compliance with these Conditions nor to delay the timeframes for review established by these Conditions. At DEP's request, the Licensee shall conduct a field inspection with the agency representative in conjunction with the interagency meeting.

E. Determination of Compliance

DEP shall give written notification within 90 days, to the Licensee and the other agency/ies to which the post-certification information was submitted of DEP's determination of whether there is demonstration of compliance with these Conditions. If it is determined that compliance with the Conditions has not been provided, the Licensee shall be notified with particularity of the deficiencies and possible corrective measures suggested. Failure to notify Licensee in writing within 90 days of receipt of a complete post-certification submittal shall constitute a determination of compliance. A postcertification compliance review may be the basis for initiating modifications to the relevant condition or to other related conditions.

F. Commencement of Construction

If DEP does not object within the time period specified in paragraph E. above, Licensee may begin construction pursuant to the terms of these Conditions and the subsequently submitted construction details.

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G. Revisions to Design Previously Reviewed for Compliance

If revisions to site-specific designs occur after submittal, the Licensee shall submit revised plans prior to construction for review.

H. Variation to Submittal Requirements

DEP, in consultation with the appropriate agencies that have regulatory authority over a matter to be addressed in a post-certification submittal, and Licensee may jointly agree to vary any of the post-certification submittal requirements, provided the information submitted is sufficient to provide reasonable assurances of compliance with these Conditions.

[Sections 120.569, 373.413, 373.416, 403.511, 403.531, and 403.9416, F.S.; Rules 62-17.191 and 62-17.205, F.A.C.]

XXI. POST-CERTIFICATION SUBMITTAL REQUIREMENTS SUMMARY

Within 90 days after certification, and within 90 days after any subsequent modification or certification, the Licensee shall provide the Department a complete summary of those post-certification submittals that are identified in these Conditions where due-dates for the information required of the Licensee are identified. A summary shall be provided as a separate document for each transmission line, if any. Such submittals shall include, but are not limited to, monitoring reports, management plans, wildlife surveys, etc. The summary shall be provided to the SCO, in a sortable spreadsheet, via email, in the format identified below or equivalent. For subsequent modifications and certifications, a Post-Certification Submittal Requirements Summary shall be required for only those resulting in new or altered post-certification requirements.

Condition Number	Requirement and Timeframe	Due Date	Name of Agency or Agency Subunit to whom the submittal is required to be provided

[Section 403.5113, F.S.; Subsection 62-17.191(3), F.A.C.]

XXII. POST CERTIFICATION AMENDMENTS

If, subsequent to certification, the Licensee proposes any material change to the SCA and revisions or amendments thereto, as certified, the Licensee shall submit a written request for amendment and a description of the proposed change to the SCA to the Department. Within 30 days after the receipt of a complete request for an amendment, the Department shall determine whether the proposed change to the application requires a modification to the Conditions.

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A. If the Department concludes that the change would not require a modification to the Conditions, the Department shall provide written notification of the approval of the proposed amendment to the Licensee, all agencies, and all other parties to the certification.

B. If the Department concludes that the change would require a modification to the Conditions, the Department shall provide written notification to the Licensee that the proposed change to the SCA requires a request for modification pursuant to Sections 403.516, F.S.

[Section 403.5113, F.S.]

XXIII. MODIFICATION OF CERTIFICATION

A. Pursuant to Sections 403.516(1)(a), 403.5315(1), 403.9418(1)(a), 120.569(2)(n), F.S., and Rule 62-17.211, F.A.C., the Siting Board hereby delegates the authority to the Department to modify any Condition which would not otherwise require approval by the Siting Board, after notice and receipt of no objection by a party to the certification within 45 days after notice by mail to the party's last address of record, and if no other person whose substantial interests will be affected by the modification objects in writing within 30 days of public notice.

B. The Department may modify Conditions, in accordance with Section 403.516(1)(b), F.S., which are inconsistent with the terms of any subsequent and separately DEP-issued permits, permit amendments, permit modifications, or permit renewals under a federally delegated or federally approved permit program. Such modification may be made without further notice if the matter has been previously noticed under the requirements for any federally delegated or approved permit program.

C. Any anticipated facility expansions, production increases, or process modifications which may result in new, different or increased discharge or emission of pollutants, change in fuel, or expansion in generating capacity must be reported by submission of an appropriate request for an amendment, modification, or certification.

D. Any anticipated facility change that results in a change to the site delineation or the delineation of the certified area, attached hereto as part of Attachment A, must be accompanied by a map or aerial photo showing the proposed new boundaries of the site and/or certified area. The Department may consider any such change to be a modification to the Conditions. Within 60 days after completion of construction of the approved facility change, the Licensee shall provide the information required by Section A. General Conditions, Condition I. Scope, paragraphs D, E, F, or G as appropriate.

E. In accordance with Section 403.516(1)(c), F.S., the Licensee may file a petition for modification with the Department, or the Department may initiate the modification upon its own initiative.

[Section 403.516, F.S.; Rule 62-17.211, F.A.C.]

XXIV. INCORPORATION OF EXISTING STATE AND LOCAL PERMITS/LICENSES

The operation of the certified facility shall be in accordance with all applicable provisions of any state or local government regulation. All state and locally issued permits are intended to be incorporated herein, such that the Licensee shall comply with the substantive provisions and limitations set forth in those permits. The inadvertent omission of any state or

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locally issued permit/approval from these Conditions can be remedied by a modification of the Conditions to include provisions from the state or locally issued permit/approval.

At any time following certification, should the Licensee become aware of any state or locally issued permit/approval not included herein, the Licensee shall promptly notify the SCO for incorporation into these Conditions. Likewise, when the Department is made aware of any separately issued permits/approvals that were inadvertently not included in the Conditions, the Conditions will be modified to incorporate the substantive provisions and limitations of any such permit/approval.

XXV. COASTAL ZONE CONSISTENCY

Pursuant to Sections 373.428 and 403.511, F.S., certification of the facility constitutes the State's concurrence that the licensed activity or use is consistent with the federally approved program under the Florida Coastal Management Act.

[Sections 373.428, 380.23 and 403.511(7), F.S.]

XXVI. FINANCIAL RESPONSIBILITY

The Department may require the Licensee to submit proof of financial responsibility and may require the Licensee to post an appropriate bond in those instances where the Department is authorized to require proof of financial responsibility or a bond pursuant to a law or Department rule that is applicable to the certified facility.

[Rule 62-4.110, F.A.C.]

XXVII. TRANSFER OF CERTIFICATION

A. This certification is transferable in whole or in part, upon Department approval, to an entity determined to be able to comply with these Conditions. A transfer of certification of all or part of the certified facility may be initiated by the Licensee's filing of a Notice of Intent to Transfer Certification with the Department. The notice of intent shall identify the intended new certification holder or Licensee and the identity of the entity responsible for compliance with the certification. Upon the filing with the Department of a written agreement from the intended Licensee/Transferee to abide by all Conditions of Certification and applicable laws and regulations, the transfer shall be approved unless the Department objects to the transfer on the grounds of the inability of the new Licensee to comply with the Conditions of Certification, specifies in writing its reasons therefore, and gives notice and opportunity to petition for a Section 120.57, F.S., administrative hearing. Upon approval, the Department will initiate a modification to the Conditions to reflect the change in ownership in accordance with Rule 62-17.211, F.A.C.

B. In the event of the dissolution of a certified Licensee, the Department may transfer certification to successor entities which are determined to be competent to construct, operate and maintain the certified facility in accordance with the conditions of certification and which are proper applicants as defined by the PPSA. Upon determination that such a successor entity complies with the above, the Department will initiate a modification to the Conditions to reflect the change in ownership in accordance with Rule 62-17.211, F.A.C.

[Rule 62-17.211, F.A.C.]

XXVIII. LABORATORIES AND QUALITY ASSURANCE

Chemical, physical, biological, microbiological and toxicological data collected as a requirement of these Conditions must be reliable, and collected and analyzed by scientifically sound procedures. Unless otherwise specified in these Conditions, the Licensee shall adhere to the minimum field and laboratory quality assurance, methodological and reporting requirements of the Department as set forth in Chapter 62-160, F.A.C. Standard Operating Procedures can be downloaded from the following website: <http://www.dep.state.fl.us/labs/qa/sops.htm>.

[Rule 62-160, F.A.C.]

XXIX. ENVIRONMENTAL RESOURCES

A. General

1. Submittals for Construction Activities

a. Prior to the commencement of construction of new facilities and/or associated facilities the Licensee shall provide to the appropriate DEP District's Environmental Resource Permitting Section(s) for review, all information necessary for a complete *Joint Application for Environmental Resource Permit* (ERP), DEP Forms 62-343.900(1), F.A.C.

This form may: a) have been submitted concurrently with a SCA; b) be submitted as part of an amendment request or a petition for modification; or c) be submitted as a post-certification submittal following approval of a project through certification, modification or amendment. Such ERP applications, once received, shall be reviewed in accordance with the standards and criteria for issuance of an ERP, including all the provisions related to reduction and elimination of impacts, conditions for issuance, additional conditions for issuance, and mitigation contained in Chapters 62-330, 62-341, and 62-343, F.A.C., as applicable unless otherwise stated in these Conditions.

Those forms submitted as part of a SCA, an amendment, or modification, shall be processed concurrently with, and under the respective certification, amendment, or modification procedures. Those forms submitted as a post-certification submittal (after project approval and prior to construction) shall be processed in accordance with Section A, Condition XX. Procedures for Post-Certification Submittals.

No construction shall commence on a Project feature, or in a particular segment for a linear facility, until the Department has determined that there is a demonstration of compliance with these Conditions. For post-certification submittal reviews, the Department's determination is governed by Section A, Condition XX. Procedures for Post-Certification Submittals.

b. Concurrent with submittal of the DEP form required in Subparagraph A.1.a. above, the Licensee shall submit, as applicable, a survey of wetland and surface water areas as delineated in accordance with Chapter 62-340, F.A.C., and verified by appropriate agency staff for Department approval. Available DEP-approved wetland and surface water delineations within the boundaries of a certified site or a portion thereof may be used and reproduced for this delineation submittal and verification.

[Chapter 62-340, F.A.C.]

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[Section 373.416, F.S.; Chapter 62-312, subsection 62-343.070(2), paragraph 62-343.090(2)(b), and Form 62-343.900(1), F.A.C.]

2 Construction, operation and maintenance of the proposed project (including any access roads and structures constructed within wetlands and other surface waters, and/or associated facilities) shall satisfy any applicable non-procedural requirements in the Department rules.

[Section 373.414, F.S.; paragraph 62-17.665(7)(d), F.A.C.]

3. Any delineation of the extent of a wetland or other surface water submitted as part of the DEP ERP Application Form required by Condition A.1.a. above, including plans or other supporting documentation, shall not be considered binding on the Department unless a specific condition of this license or a formal wetlands jurisdictional determination under Section 373.421(2), F.S., provides otherwise.

[Sections 373.421, 403.504, 403.523, and 403.9404, F.S.]

B. Surface Water Management

1. Information regarding surface water management systems (SWMS) will be reviewed for consistency with applicable non-procedural requirements of Part IV of Chapter 373, F.S., following submittal of Form 62-343.900(1), F.A.C., to the appropriate office of the Department.

2. All construction, operation, and maintenance of the SWMS(s) for the certified facilities shall be as set forth in the plans, specifications and performance criteria contained in the SCA and other materials presented during the certification proceeding, post-certification submittals, and as otherwise approved. If specific requirements are necessary for construction, operation and/or maintenance of an approved SWMS, those requirements shall be incorporated into a SWMS Plan for that system and included in Attachment B (Surface Water Management System Plans). Any alteration or modification to the SWMS Plan or the SWMS as certified requires prior approval from the Department.

3. Immediately prior to, during construction, and for the period of time after construction to allow for stabilization of all disturbed areas, the Licensee shall implement and maintain erosion and sediment control best management practices, such as silt fences, erosion control blankets, mulch, sediment traps, polyacrylamide (PAM), temporary grass seed, permanent sod, and floating turbidity screens to retain sediment on-site and to prevent violations of state water quality standards. These devices shall be installed, used, and maintained at all locations where the possibility of transferring suspended solids into the receiving waterbody exists due to the licensed work, and shall remain in place at all locations until construction is completed and soils are permanently stabilized. All best management practices shall be in accordance with the guidelines and specifications described in *the State of Florida Erosion and Sediment Control Designer and Reviewer Manual* (Florida Department of Transportation and Florida Department of Environmental Protection, 2007) unless a project-specific erosion and sediment control plan is approved as part of this License. If project-specific conditions require additional measures during any phase of construction or operation to prevent erosion or control sediments beyond those specified in the approved erosion and sediment control plan, the Licensee shall implement additional best management practices as necessary, in accordance with the guidelines and specifications in *the State of Florida Erosion and Sediment Control Designer*

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and Reviewer Manual (Florida Department of Transportation and Florida Department of Environmental Protection by HydroDynamics Incorporated in cooperation with Stormwater Management Academy, June 2007). The Licensee shall correct any erosion or shoaling that causes adverse impacts to the water resources as soon as feasible. Once project construction has been deemed complete, including the re-stabilization of all side slopes, embankments and other disturbed areas, and before conversion from the operation and maintenance phase, all silt screens and fences, temporary baffles, and other materials that are no longer required for erosion and sediment control shall be removed.

4. The Licensee shall complete construction of all aspects of the SWMS described in the DEP ERP Application Form, as part of a postcertification submittal, amendment, or modification, including water quality treatment features, and discharge control facilities prior to use of the portion of the certified facility being served by the SWMS.

5. At least 48 hours prior to the commencement of construction of any new surface water management system authorized by this license, the Licensee shall submit to the Department a written notification of commencement using an "Environmental Resource Permit Construction Commencement Notice" (DEP Form 62-343.900(3), F.A.C.), indicating the actual start date and the expected completion date. When the duration of construction will exceed one year, the Licensee shall submit construction status reports to the Department on an annual basis utilizing an "Annual Status Report Form" (DEP Form No. 62-343.900(4), F.A.C.). Status Report Forms shall be submitted the following June of each year.

6 Each phase or independent portion of the approved system must be completed in accordance with the submitted DEP Form prior to the operation of site infrastructure located within the area served by that portion or phase of the system.

7. Within 30 days after completion of construction of any new portions of the surface water management system, the Licensee shall submit to the SCO and DEP District Office a written statement of completion and certification by a registered professional engineer (P.E.), or other appropriate registered professional, as authorized by law, utilizing the required "As-Built Certification by a Registered Professional" (DEP Form 62-343.900(5), F.A.C.). Additionally, if deviations from the approved drawings are discovered, the As-Built Certification must be accompanied by a copy of the approved drawings with deviations noted.

8. Any substantial deviation from the approved drawings, exhibits, specifications or Conditions, may constitute grounds for revocation or enforcement action by the Department. Examples of substantial deviations may include excavation of ponds, ditches or sump areas deeper than shown on the approved plans.

9. Prior to converting a construction phase SWMS to an operation phase SWMS, the Licensee shall submit to the Department a "Request for Transfer of Environmental Resource Permit Construction Phase to Operation Phase" (DEP Form 62-343.900(7), F.A.C.). The operation phase of any new SWMS approved by the Department shall not become effective until the Licensee has complied with the requirements of the Conditions herein, the Department determines the system to be in compliance with the approved plans, and the entity approved by the Department accepts responsibility for operation and maintenance of the system.

10. The DEP District ERP Section must be notified in advance of any proposed construction dewatering. If the dewatering activity is likely to result in offsite discharge or sediment transport into wetlands or surface waters, a written dewatering plan must be submitted to and

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approved by the Department prior to the dewatering event. Additional authorizations may be required for certain dewatering activities.

[Section 373.414, F.S.; Chapters 62-25, 62-302, 62-330, 62-343, and Rule 62-4.242, F.A.C.]

C. Wetland and Other Surface Water Impacts

1. All certified facilities shall be constructed in a manner which will avoid or minimize adverse impacts to on-site and/or adjacent wetlands or other surface waters to the extent feasible or otherwise comply with substantive criteria for avoidance and minimization. When unavoidable impacts to wetlands will occur as a result of future amendment, modification, or certification, and cannot be practically avoided or minimized, the Licensee may propose and the Department or Board shall consider mitigation to offset otherwise unpermissible activities under the Environmental Resource Permit review process pursuant to Condition A.1.a above.

2. Proposed mitigation plans submitted with the DEP ERP Application forms required in Condition A.1.a. above, or submitted and approved as part of an amendment, modification, or certification, and that are deemed acceptable by DEP, shall include applicable construction conditions, success criteria and monitoring plans, and shall be incorporated into these Conditions as Attachment C (Mitigation Plans).

[Sections 373.413, 373.414, 373.4145, and 403.511, F.S.; Chapters 62-330, 62-341 62-342, 62-343, and 62-345, F.A.C.]

XXX. THIRD PARTY IMPACTS

The Licensee is responsible for maintaining compliance with these Conditions even when third party activities authorized by the Licensee occur in or on the certified area. Such third party activities authorized by the Licensee may include but are not limited to mining, hunting, and timbering.

[Sections 403.506(1), F.S.]

XXXI. FACILITY OPERATION

The Licensee shall properly operate and maintain the certified facility and systems of treatment and control (and related appurtenances) that are installed and used by the Licensee to achieve compliance with these Conditions, as required by the final order of certification, these Conditions, or a post-certification amendment or modification. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the final order of certification, these Conditions, or a post-certification amendment or modification. Further, the Licensee shall take all reasonable steps to minimize any adverse impact resulting from noncompliance with any limitation specified in this certification, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying event.

[subsection 62-4.160(6), F.A.C.]

XXXII. RECORDS MAINTAINED AT THE FACILITY

A. These Conditions or a copy thereof shall be kept at the Site.

SECTION A: GENERAL CONDITIONS

B. The Licensee shall hold at the site, or other location designated by these Conditions, records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation required by these Conditions, copies of all reports required by these Conditions, and records of all data used to complete the SCA for this approval. These materials shall be retained at least three (3) years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

C. Records of monitoring information shall include:

1. the date, exact place, and time of sampling or measurements;
2. the person responsible for performing the sampling or measurements;
3. the dates analyses were performed;
4. the person responsible for performing the analyses;
5. the analytical techniques or methods used; and,
6. the results of such analyses.

[subsection 62-4.160(12) and paragraph 62-4.160(14)(b), F.A.C.]

XXXIII. WATER DISCHARGES

A. Discharges

1. The Licensee shall not discharge to surface waters wastes which are acutely toxic, or present in concentrations which are carcinogenic, mutagenic, or teratogenic to human beings or to significant locally occurring wildlife or aquatic species. The Licensee shall not discharge to ground waters wastes in concentrations which, alone or in combination with other substances, or components of discharges (whether thermal or non-thermal) are carcinogenic, mutagenic, teratogenic, or toxic to human beings (unless specific criteria are established for such components in Rule 62-520.400, F.A.C.) or are acutely toxic to indigenous species of significance to the aquatic community within surface waters affected by the ground water at the point of contact with surface waters.

2. All discharges and activities must be conducted so as to not cause a violation of the water quality standards set forth in Chapters 62-4, 62-302, 62-520, and 62-550, 62-620, F.A.C., including the provisions of Rules 62-4.243, 62-4.244, and 62-4.246, F.A.C., the antidegradation provisions of paragraphs 62-4.242(1)(a) and (b), F.A.C., subsections 62-4.242(2) and (3), F.A.C., and Rule 62-302.300, F.A.C., and any special standards for Outstanding Florida Waters and Outstanding National Resource Waters set forth in subsections 62-4.242(2) and (3), F.A.C.;

3. All dewatering discharges must be in compliance with Rule 62-621.300, F.A.C.

[Chapters 62-4, 62-302, 62-520, 62-550, and 62-620, F.A.C., and Rule 62-621.300, F.A.C.]

B. Wastewater Incident Reporting

1. The Licensee shall report to the appropriate district office any noncompliance with industrial wastewater requirements which may endanger health or the

SECTION A: GENERAL CONDITIONS

environment. Any information shall be provided orally within 24 hours from the time the Licensee becomes aware of the circumstances.

The Licensee shall provide the following information, to the extent known, to the Southwest District Office in the 24-hr oral report:

- a. Any unanticipated bypass which causes any reclaimed water or effluent to exceed any permit limitation or results in an unpermitted discharge,
- b. Any upset which causes any reclaimed water or the effluent to exceed any limitation in the permit,
- c. Violation of a maximum daily discharge limitation for any of the pollutants specifically listed in the permit for such notice, and
- d. Any unauthorized discharge to surface or ground waters.

A written submission shall also be provided within five days of the time the Licensee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and time, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

2. For unauthorized releases or spills of treated or untreated wastewater reported that are in excess of 1,000 gallons per incident, or where information indicates that public health or the environment will be endangered, oral reports shall be provided to the Department by calling the STATE WARNING POINT NUMBER (800) 320-0519, as soon as practical, but no later than 24 hours from the time the Licensee becomes aware of the discharge. The Licensee, to the extent known, shall provide the following information to the State Warning Point:

- a. Name, address, and telephone number of person reporting;
- b. Name, address, and telephone number of Licensee or responsible person for the discharge;
- c. Date and time of the discharge and status of discharge (ongoing or ceased);
- d. Characteristics of the wastewater spilled or released (untreated or treated, industrial or domestic wastewater);
- e. Estimated amount of the discharge;
- f. Location or address of the discharge;
- g. Source and cause of the discharge;
- h. Whether the discharge was contained on-site, and cleanup actions taken to date;
- i. Description of area affected by the discharge, including name of water body affected, if any; and
- j. Other persons or agencies contacted.

SECTION A: GENERAL CONDITIONS

3. If the oral report has been received within 24 hours, the noncompliance has been corrected, and the noncompliance did not endanger health or the environment, the Department shall waive the written report.

[Chapter 403, F.S.; subsection 62-620.610(20), F.A.C.]

XXXIV. SOLID AND HAZARDOUS WASTE

A. Solid Waste

The Licensee shall comply with all applicable provisions of Chapters 62-701, F.A.C., for any solid waste generated within the certified facility during construction and/or operation.

[Chapters 62-701, F.A.C.]

B. Hazardous Waste

The Licensee shall comply with all applicable non-procedural provisions of DEP Chapter 62-730, F.A.C., for any hazardous waste generated within the certified facility. An EPA identification number must be obtained before beginning hazardous waste activities, except for Conditionally Exempt Small Quantity Generators (CESQGs) who are exempt from this regulation under Title 40 Code of Federal Regulations (CFR), §261.5. CESQGs generate no more than 100 kg (220 lbs) of hazardous waste in any month.

The Licensee shall comply with all applicable provisions of DEP Chapter 62-710, F.A.C., for any used oil and used oil filters generated within the certified facility.

The Licensee shall comply with all applicable provisions of DEP Chapter 62-737, F.A.C., for any spent mercury-containing lamps and devices generated within the certified facility.

[Chapter 62-710, 62-730 and 62-737, F.A.C.]

C. Hazardous Substance Release Notification

1. Any owner or operator of a facility who has knowledge of any release of a hazardous substance from a facility in a quantity equal to or exceeding the reportable quantity in any 24-hour period shall notify the Department by calling the STATE WARNING POINT NUMBER, (800) 320-0519, as soon as possible, but no later than one working day of discovery of the release.

2. Releases of mixtures and solutions are subject to these notification requirements only where a component hazardous substance of the mixture or solution is released in a quantity equal to or greater than its reportable quantity.

3. Notification of the release of a reportable quantity of solid particles of antimony, arsenic, beryllium, cadmium, chromium, copper, lead, nickel, selenium, silver, thallium, or zinc is not required if the mean diameter of the particles released is larger than 100 micrometers (0.004 inches).

[Chapter 62-150, F.A.C.]

SECTION A: GENERAL CONDITIONS

D. *Used Oil, Petroleum Contact Water and Spent Mercury*

The Licensee shall comply with all applicable provisions of Chapter 62-710, F.A.C., for any used oil including oil filters, Chapter 62-740, F.A.C., for any petroleum contact water, and Chapter 62-737, F.A.C., for any spent mercury containing lamps and devices generated within the certified facility during construction and operation.

[Chapters 62-710 and 62-737, F.A.C.]

E. *Contaminated Site Cleanup*

1. The Licensee shall comply with all applicable provisions of DEP Chapter 62-780, F.A.C., for any violations of relevant provisions of Chapter 376 or 403, F.S., that result in legal responsibility for site rehabilitation pursuant to those chapters. This responsibility for site rehabilitation does not affect any activity or discharge permitted or exempted pursuant to Chapter 376 or 403, F.S., or rules promulgated pursuant to Chapter 376 or 403, F.S.

[Chapter 62-780, F.A.C.]

[Chapters & Rules 62-160.110, 62-160.240, 62-160.340, 62-701.510(9)(a), 62-710, 62-730.225, 62-740, and 62-780, F.A.C.]

XXXV. STORAGE TANK SYSTEMS

Registration, construction, installation, operation, maintenance, repair, closure, and disposal of storage tank systems that store regulated substances shall be in accordance with Chapters 62-710, 62-761 and 62-762, F.A.C., in order to minimize the occurrence and environmental risks of releases and discharges. Mineral acid storage tank systems are subject only to Rule 62-762.891, F.A.C.

A. *Incident Notification Requirements.*

Notification of the discovery of the loss of a regulated substance from a storage tank system exceeding 100 gallons on impervious surfaces, other than secondary containment, such as driveways, airport runways, or other similar asphalt or concrete surfaces, provided that the loss does not come in contact with pervious surfaces; or of the discovery of any other incident listed in subsections 62-761.450(2) or 62-762.451(2), F.A.C., shall be made to the County on Incident Notification Form 62-761.900(6), F.A.C, within 24 hours or before the close of the County's next business day.

B. *Discharge Reporting Requirements*

Upon discovery of an unreported discharge of a regulated substance, the Licensee or operator shall report to the County on Discharge Report Form 62-761.900(1), F.A.C., within 24 hours or before the close of the County's next business day those items listed in paragraph 62-761.450(3)(a), F.A.C., including a spill or overfill event of a regulated substance to soil or another pervious surface, equal to or exceeding 25 gallons, unless the regulated substance has a more stringent reporting requirement specified in C.F.R. Title 40, Part 302.

C. *Discharge Cleanup*

If a discharge of a regulated substance occurs at a certified facility, actions shall be taken immediately to contain, remove, and abate the discharge under all applicable Department rules (for example, Chapter 62-770, F.A.C., Petroleum Contamination Site Cleanup

SECTION A: GENERAL CONDITIONS

Criteria). Owners and operators are advised that other federal, state, or local requirements may apply to these activities. If the contamination present is subject to the provisions of Chapter 62-770, F.A.C., corrective action, including free product recovery, shall be performed in accordance with that Chapter.

D. Out of Service and Closure Requirements

Storage tank systems shall be taken out-of-service and/or closed as necessary in accordance with Rules 62-761.800 and 62-762.801, F.A.C., as applicable.

[Chapters 62-761 and 62-762, F.A.C.]

XXXVI. NOISE

The Licensee shall comply with applicable local noise ordinances, if any, during construction and operation of the certified facility.

XXXVII. SCREENING

The Licensee shall comply with applicable local government requirements concerning the screening of the certified facility.

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SECTION B. SPECIFIC CONDITIONS

I. DEPARTMENT OF ENVIRONMENTAL PROTECTION

A. *Environmental Control Program*

1. An environmental control program shall be established under the supervision of a qualified person to assure that all construction activities conform to good environmental practices and the applicable Conditions of Certification.
2. The Licensee shall notify the Department if unexpected harmful effects or evidence of irreversible environmental damage are detected during construction, shall immediately cease work and shall provide an analysis of the problem and a plan to eliminate or significantly reduce the harmful effects or damage, and to prevent reoccurrence.

B. *Solid and Hazardous Waste Management*

1. The solid waste utilization facility shall be designed and operated in compliance with all applicable regulations of the Department, including but not limited to Chapter 62-701, F.A.C.
2. The Licensee shall comply with the requirements of the approved Waste Management Plan ("WMP"). The WMP is incorporated into and made part of the Combustion By-Product Storage Facility Operations Manual (Attachment E to these Conditions) and describes the type, and handling and management of coal combustion by-products ("CCPs") generated by the certified facility. Handling and management of solid wastes shall be in accordance with the Department-approved WMP. A violation of the requirements of the WMP shall be a violation of these Conditions.

All revisions and updates to the WMP shall be submitted to the Department's Southwest District Solid Waste Section with copies to the Siting Office. Review shall be in accordance with Section A, Condition XX. Procedures for Post-Certification Submittals. Additionally, the water quality monitoring requirements for the facility's landfill disposal areas (Attachment D to these Conditions) shall be updated, as appropriate, based on changes to the WMP to reflect revised CCP management practices.

3. No hazardous waste is to be permanently stored onsite.
4. Leachate from coal storage piles, settling and treatment ponds, secure landfills and flue gas desulfurization sludge ponds (FGD) shall not contaminate waters of the State (including both surface and groundwater) in excess of the limitations of Chapters 62-302 and 62-520, F.A.C.
5. Landfill Disposal Area Water Quality Monitoring
 - a. The water quality monitoring requirements for the facility's landfill disposal areas (i.e., Ground Water Monitoring Plan or GWMP) are described in Attachment D of these Conditions. The Licensee shall comply with the requirements of the approved GWMP. A violation of the requirements of the GWMP shall be a violation of these Conditions.
 - b. All other revisions or updates to the GWMP shall be submitted to the Department's Southwest District Office Solid Waste Section as appropriate for review and

SECTION B: SPECIFIC CONDITIONS

approval with copies to the SCO. Review shall be in accordance with Section A, Condition XX. Procedures for Post-Certification Submittals.

C. Industrial Wastewater

All industrial wastewater is to be discharged into the existing McIntosh Power Plant Facility wastewater treatment units. Should there be any change in these treatment units that adversely affect the treatment of wastewater from the McIntosh Unit No. 5 these Conditions of Certification must be modified in accordance with General Condition XXIII. Modification of Certification.

D. Domestic Wastewater

All sanitary wastewater is to be discharged into the existing McIntosh Power Plant Facility wastewater treatment units. Should there be any change in these treatment units that adversely affect the treatment of wastewater from the McIntosh Unit No. 5 these Conditions of Certification must be modified in accordance with General Condition XXIII. Modification of Certification.

E. Potable Water

1. The potable water supply system shall be designed and operated in conformance with Chapter 62-555, F.A.C. Information as required in Rule 62-555.520, F.A.C., shall be submitted to the Department prior to construction and operation. The operator of the potable water supply system shall be certified in accordance with Chapter 62-602, F.A.C.

2. All potable water is to be received from the existing McIntosh Power Plant Facility potable water supply. Should there be any change in these supply units that adversely affect the delivery of potable water to the McIntosh Unit No. 5 these Conditions of Certification must be modified in accordance with General Condition XXIII. Modification of Certification.

F. Water Discharges (Unit 3)

Discharges during construction and operation of the Unit No. 3 shall be in accordance with all applicable provisions of Chapter 62-302, F.A.C., and 40 CFR Part 423, *Effluent Guidelines and Standards for Steam Electric Power Generating Point Source Category*. In addition, the licensee shall comply with the following Conditions of Certification:

1. Pretreatment Standards

Wastewater discharges from Unit No. 3 to the Lakeland wetlands treatment system shall comply with the effluent limitation guidelines contained in 40 CFR § 423.16 and amendments. The specific standards applicable to the facilities as planned are:

a. Cooling Tower Blowdown

There shall be no detectable amounts of materials added for corrosion inhibition containing zinc and chromium in cooling tower blowdown discharged to the City of Lakeland wetland treatment system.

b. PH

The pH of all discharges shall be within the range of 6.0 to 9.0.

c. Polychlorinated Biphenyl Compounds

SECTION B: SPECIFIC CONDITIONS

There shall be no release to the environment of polychlorinated biphenyl compounds.

d. Chemical Wastes and Boiler Blowdown

All low volume wastes (demineralizer regeneration, cooling tower basin cleaning wastes, floor drainage, sample drains and similar wastes), metal cleaning wastes (including preheater and fireside wash) and boiler blowdown shall be treated as required for pH adjustment and removal of chemical constituents. These wastewaters will be treated in a process wastewater treatment system capable of complying with 40 CFR, § 423.16 and discharged with the cooling tower blowdown via a return pipeline to the Lakeland wetlands treatment system. The remaining sludge shall be disposed of in the onsite FGD stabilized sludge landfill.

e. Sluice Pond Overflow

Sluice pond overflow (coal pile runoff from less than 10-year, 24-hour rainfall and bottom and fly ash transport water) shall be treated if necessary to meet the requirements of 40 CFR, § 423.16 and discharged with the cooling tower blowdown to the Lakeland wetlands treatment system.

f. Flue Gas Desulfurization Sludge Pond Overflow

The flue gas desulfurization sludge pond overflow shall be treated if required to meet the requirements of 40 CFR, § 423.16 in a process waste system and discharged with the cooling tower blowdown to the Lakeland wetlands treatment system.

2. In-Plant Water Monitoring Program

A monitoring program shall be undertaken by the City of Lakeland on each effluent stream within the facility to determine compliance by Unit 3 with the applicable effluent guidelines of 40 CFR, § 423.16 for those wastewaters discharged to the Lakeland wetlands treatment system. This monitoring program may be reviewed annually to determine the necessity for its continuance.

G. Transformer and Electric Switching Gear

The foundations for transformers, capacitors, and switching gear necessary for McIntosh Unit 3 to the existing distribution system shall be constructed of an impervious material and shall be constructed in such a manner to allow complete collection and recovery of any spills or leakage of oily, toxic, or hazardous substances.

H. Transmission Lines

Directly associated transmission lines shall be constructed and maintained in a manner to minimize environmental impacts in accordance with Chapters 403 and 373, F.S.

1. Construction

a. Filling and construction in State Owned Sovereign Submerged Lands (SSSL) as well as other applicable waters of the State shall be minimized to the extent practicable. No such activities shall take place without obtaining lease or title from the Board of Trustees of the Internal Improvement Trust Fund.

SECTION B: SPECIFIC CONDITIONS

b. Placement of fill in wetland areas shall be minimized by spanning such areas with the maximum transmission lines span practicable. Such areas should be bridged by maintenance or access roads.

c. Construction and access roads should avoid wetlands and be located in surrounding uplands. Any fill required in wetlands for construction but not required for maintenance purposes shall be removed and the ground restored to its original contours after transmission line placement.

d. Keyhole fills from upland areas are preferable to a single road and should be oriented as nearly parallel to surface water flow lines as possible.

e. Sufficient culverts shall be placed through fill causeways to maintain sheet flow. The number and locations of such culverts will be determined in the field by consultation with DEP field inspectors.

f. Maintenance roads shall be planted with native species to prevent erosion and subsequent water quality degradation.

g. Construction activities should proceed as much as possible during the dry season.

h. Turbidity control measures, where needed, shall be employed to prevent violation of water quality standards.

i. Good environmental practices published by the U.S. Department of Interior and the U.S. Department of Agriculture should be followed.

j. Any archaeological sites discovered during construction of the transmission line shall be disturbed as little as possible and such discovery shall be communicated to the Department of State, Division of Historical Resources.

k. At least 60 days prior to the projected commencement of construction of any transmission line improvements in wetlands, including improvements or expansions of the Lakeland-Taft Transmission Line operated by the Orlando Utilities Commission (OUC), the applicant shall submit to DEP and the U.S. Army Corps of Engineers a Joint Environmental Resource Permit Application, DEP Form No. 62-343.900(1), F.A.C. A copy of the application shall also be provided to SWFWMD and DEP. Information may be submitted by discrete sections of the transmission line right of way. The applicant shall consult with DEP to identify mutually agreeable sections for purposes of wetlands submittals. The completed application for each section shall be reviewed as a post certification submittal consistent with 403.5113, F.S. In the construction of any additional or expanded transmission facilities including upgraded structure pads or expanded access roads in wetlands, provision must be made to replace or otherwise mitigate any loss of historic basin storage and to avoid any net encroachment into the flood plains. OUC shall provide reasonable assurance that any improvements to be constructed in wetlands shall satisfy the criteria of Rules 40D-4.301 and 40D-4.302, F.A.C., and the applicable portions of Part B of the SWFWMD Environmental Resource Permitting Information Manual, including Sections 4.4 and 4.7.

l. Upon prior approval from DEP and in accordance with this Condition of Certification, OUC is authorized to reconductor and perform maintenance work within the certified Lakeland-Taft Transmission Line right-of-way using "no impact"

SECTION B: SPECIFIC CONDITIONS

construction methods as described herein. “No impact” is defined for these purposes to mean that fill will not be added to perform the work. Any work requiring or resulting in impacts not authorized above or by these Conditions of Certification, including, without limitation, any permanent fill in floodplain or historic depressional surface water storage areas, must receive prior approval from DEP.

m. To fully offset the proposed direct, cumulative, and secondary impacts of 5.33 acres of wetland fill associated with the upgrades and replacement of structures and facilities within the Cane Island to Taft Substation Segment of the Lakeland-Taft Transmission Line, the applicant, Orlando Utilities Commission, shall purchase 5.33 mitigation bank credits from an approved mitigation bank. The approved bank for the impacts within the Reedy Creek and Shingle Creek basins would be the Florida Mitigation Bank (FMB). The approved bank for the impacts within the Boggy Creek basin would be the TM-Econ Mitigation Bank (TM-Econ). Prior to construction commencement, the applicant shall provide verification of purchase of 3.7 mitigation bank credits from the FMB, and 1.6 mitigation bank credits from TM-Econ, and submit to the Department (Central District), verification of the mitigation bank credit withdrawal from the approved bank ledgers.

n. No net encroachment into the floodplain, between the average wet season water table and that encompassed by the 100 year event, which will adversely affect the existing rights of others, is allowed for that work associated with the upgrades and replacement of structures and facilities within the Cane Island Tap to Taft Substation Segment of the Lakeland-Taft Transmission line. Provision must be made by the Applicant, Orlando Utilities Commission, to replace or otherwise mitigate the loss of historic basin storage provided by the project.

2. Maintenance

a. Vegetative removal for maintenance should be carried out in the following manner:

Vegetation within the right-of-way may be cut or removed no lower than the soil surface under the conductor, and for a distance up to 20 feet to either side of the outermost conductor, while maintaining the remainder of the project right-of-way by selectively clearing vegetation which has an expected mature height above 14 feet. Brazilian pepper, Australian pine and Melaleuca shall be eradicated throughout the wetland portion of the right-of-way.

b. Herbicides registered with the U.S. Environmental Protection Agency may be used for vegetation control within the transmission line easement without prior approval of the Department.

II. DEPARTMENT OF TRANSPORTATION

A. *Access Manage to the State Highway System*

Any access to the State Highway System will be subject to the requirements of Rule Chapters 14-96, State Highway System Connection Permits, and 14-97, Access Management Classification System and Standards, F.A.C.

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B. Overweight or Overdimensional Loads

Operation of overweight or overdimensional loads by the applicant on State transportation facilities during construction and operation of the utility facility will be subject to safety and permitting requirements as defined in Chapter 316, F.S., and Rule Chapter 14-26, Safety Regulations and Permit Fees for Overweight and Overdimensional Vehicles, F.A.C.

C. Use of State of Florida Right of Way or Transportations Facilities

Any use of State of Florida right of way and certain activities on State transportation facilities will be subject to the requirements of the Department of Transportation's Utility Accommodation Manual (Document 710-020-001), Rule Chapter 14-46, Utilities Installation or Adjustment, F.A.C., and Section 337.403, F.S.

D. Drainage

Any drainage onto State of Florida right of way and transportation facilities will be subject to the requirements of Rule Chapter 14-86, Drainage Connections, F.A.C., including the attainment of any permit required thereby.

E. Use of Air Space

Any newly proposed structure or alteration of an existing structure will be subject to the requirements of Chapter 333, F.S., and Rule 14-60.009, Airspace Protection, F.A.C. Additionally, notification to the Federal Aviation Administration (FAA) is required prior to beginning construction, if the structure exceeds notification requirements of 14 CFR Part 77, Objects Affecting Navigable Airspace, Subpart B, Notice of Construction or Alteration. Notification will be provided to FAA Southern Region Headquarters using FAA Form 7460-1, Notice of Proposed Construction or Alteration in accordance with instructions therein. A subsequent Determination by the FAA stating that the structure exceeds any federal obstruction standard of 14 CFR Part 77, Subpart C for any structure that is located within a 10-nautical-mile radius of the geographical center of a public-use airport or military airfield in Florida will be required to submit information for an Airspace Obstruction Permit from the Florida Department of Transportation or variance from local government depending on the entity with jurisdictional authority over the site of the proposed structure. The FAA Determination regarding the structure serves only as a review of its impact on federal airspace and is not an authorization to proceed with any construction. However, FAA recommendations for marking and/or lighting of the proposed structure are made mandatory by Florida law. For a site under Florida Department of Transportation jurisdiction, application will be made by submitting Florida Department Transportation Form 725-040-11, Airspace Obstruction Permit Application, in accordance with the instructions therein.

F. Traffic Control

Traffic control will be maintained during construction and maintenance in compliance with the standards contained in the Manual of Uniform Traffic Control Devices; Rule Chapter 14-94, Statewide Minimum Level of Service Standards, Florida Administrative Code; Florida Department of Transportation's Roadway and Traffic Design Standards; Florida Department of Transportation's Standard Specifications for Road and Bridge Construction; and the Department's Utility Accommodation Manual, whichever is more stringent.

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G. Other

1. Heavy construction vehicles are to remain onsite during construction
2. A bulletin board shall be located such that employees have easy access to it and on which car pooling advertisements can be placed.

III. DEPARTMENT OF HEALTH

Sanitary waste from operating plant facilities shall be disposed of in a septic tank system, as approved by the Department of Health & Rehabilitative Services, as long as the average daily flow does not exceed 2,000 gallons per day. If the sanitary waste exceeds 2000 gpd, a properly designed treatment system shall be constructed upon receipt of approval by the Department.

IV. FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

A. Listed Species Survey

Before land clearing and construction activities within the certified facility occur, the Licensee shall conduct an assessment for listed species which will note all habitat, occurrence or evidence of listed species. Listed species to be included in this survey shall include those listed as endangered, threatened or of special concern by Florida Fish and Wildlife Conservation Commission (FWC) or those listed as endangered or threatened by U.S. Fish and Wildlife Service (USFWS). Resources that may be consulted in conducting this assessment are available through the "Florida Wildlife Conservation Guide" at:

<http://myfwc.com/CONSERVATION/FWCG.htm>.

1. This survey shall be conducted in accordance with USFWS/FWC guidelines and methodologies by a person or firm that is knowledgeable and experienced in conducting flora and fauna surveys for listed species.
2. This survey shall identify any wading bird colonies within the project that may be affected.
3. This survey shall identify locations of breeding locations, nests, and burrows for listed wildlife species. Nests and burrows may be recorded with GPS coordinates, identified on an aerial photograph, and submitted with the final listed species report. Although nests and burrows may be recorded individually with GPS, the FWC prefers that a protection radius surrounding nest sites and burrows be included, rather than individual nests and burrows, and be physically marked so that clearing and construction will avoid impacting them.
4. This survey shall include an estimate of the acreage and percent cover of each existing vegetation community (Florida Land Use, Cover and Forms Classification System, or FLUCFCS, at the third degree of detail) including a wildlife-based habitat classification scheme such as the Comprehensive Wildlife Conservation Strategy (FWC 2005), Descriptions of Vegetation and Land Cover Types (FWC 2004), or Natural Communities Guide (FNAI 1990) of each community that is contained within the certified facility prior to land clearing and construction activities using GIS.

B. Listed Species Locations

Where any suitable habitat and evidence is found of the presence of listed species within the certified facility, the Licensee will report those locations to, and confer with,

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the appropriate regulatory agencies for possible additional pre-clearing surveys and to identify potential mitigation, or avoidance recommendations. If pre-clearing surveys are required, they shall be timed to be reasonably compatible with the construction schedule, considering the in-service date specified in the Public Service Commission's need determination. The Licensee will not construct in areas where evidence of listed species was identified during the initial survey until the particular listed species issues have been resolved.

1. *Listed Wildlife Species:* If listed wildlife species are found, their presence shall be reported to the DEP SCO, the appropriate DEP District Office(s), the FWC's Office of Conservation Planning Services, the appropriate WMD, the appropriate local government(s), and the USFWS.

2. *Listed Vegetation Species:* If listed vegetation species are found on public land or water, their presence shall be reported to the DEP SCO and the Florida Department of Agriculture and Consumer Services (DACS). Listed wildlife species and listed vegetation species on public land or water shall not be disturbed, if feasible.

3. *Species Management Plan:* If avoidance is not feasible, the Licensee shall consult with DEP, FWC, and, if necessary, the USFWS for listed wildlife species, and with the DACS for listed vegetation species on public land or water, to determine the steps appropriate for the species involved which are to be taken to avoid, minimize, mitigate, or otherwise appropriately address impacts within each agency's respective jurisdiction. For wildlife species, these steps shall be memorialized in a Wildlife Management Plan and submitted to DEP, FWC, and the appropriate local government.

[Chapter 379, F.S.]

V. DEPARTMENT OF STATE – DIVISION OF HISTORICAL RESOURCES

A. The Licensee shall conduct a survey of sensitive cultural resource areas prior to any new land clearing and construction activities, as determined in consultation with the Department of State, Division of Historical Resources (DHR). A qualified cultural resources consultant will identify an appropriate work plan for this project based on a thorough review of the certified facility. Prior to beginning any field work, the work plan will be reviewed in consultation with DHR. Upon completion of the survey, the results will be compiled into a report which shall be submitted to DHR. If feasible, sites considered to be eligible for the National Register shall be avoided during construction of the project and access roads, and subsequently during maintenance. If avoidance of any discovered sites is not feasible, impact shall be mitigated through archaeological salvage operations or other methods acceptable to DHR, as appropriate.

B. If historical or archaeological artifacts or features are discovered at any time within the certified facility, the Licensee shall notify the appropriate DEP District office (s) and the DHR, R.A. Gray Building, 500 S. Bronough Street, Rm 423, Tallahassee, Florida 32399-0250, telephone number (850) 487-6333, and the Licensee shall consult with DHR to determine appropriate action.

[Sections 267.061, 403.531, and 872.02, F.S.]

SECTION B: SPECIFIC CONDITIONS

VI. SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

A. *Surface Water and Stormwater Management*

The City of Lakeland shall construct all aspects of the surface water management system in accordance with the construction plans received by the Southwest Florida Water Management District (SWFWMD) on June 23, 1998. This certification for the surface water management system is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or Conditions of Certification may constitute grounds for modification, revocation or enforcement action.

1. General

a. City of Lakeland Confirmation

The operational phases of the surface water management systems authorized under this certification shall not become effective until the City of Lakeland confirms in writing, upon completion of each phase, that these facilities have been constructed consistent with the Conditions of Certification. Such confirmation shall include a certification by an engineer (practicing in the State of Florida, having the appropriate experience in surface water management design and construction, and in compliance with Chapter 471, F.S., unless exempt thereunder, that the facilities have been constructed in accordance with the approved project design. Within 30 days after completion of construction of the surface water management system, the City of Lakeland shall submit the confirmation, including "as-built" construction drawings with the engineer's certification and a description of any deviations; and notify the SWFWMD that the facilities are ready for inspection for consistency with the Conditions of Certification and information submitted hereunder.

b. Discharges

The discharges from the surface water management system shall meet state water quality standards as set forth in Chapter 62-302, F.A.C., for class waters equivalent to the receiving waters.

c. Minimum Standards

This certification is predicated on the City of Lakeland's submitted information to SWFWMD which reasonably demonstrates that adverse off-site water resource related impacts will not be caused by the authorized activities. The plans, drawings, and design specifications submitted shall be considered minimum standards for compliance.

d. Post-Certification Submittals

Information submitted to the SWFWMD subsequent to certification, in compliance with the conditions of this certification, shall be for the purpose of water management district monitoring and confirming compliance with the conditions of certification and the criteria contained in Rule 40D-4, F.A.C., as applicable, prior to the commencement of the subject construction, operation and/or maintenance activity, covered thereunder.

e. Liability

SECTION B: SPECIFIC CONDITIONS

The Licensee shall hold and save SWFWMD harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, operation, maintenance and/or use of any facility authorized by this certification, to the extent allowed under Florida law.

f. Enforcement

Authorized representatives of the SWFWMD shall be allowed reasonable escorted access to the project site to inspect and observe any activities associated with the project construction or the operation and/or maintenance of the surface water management system(s) and stormwater facilities in order to determine compliance with the conditions of this certification.

g. Monitoring

Post-certification monitoring requirements may be determined and specified as a result of technical review of construction information, where necessary, to demonstrate compliance with water management district regulations. If monitoring data is required by the SWFWMD in conjunction with post-certification review, it shall be submitted to the SWFWMD and the Florida Department of Environmental Protection. Parameters to be monitored may include those listed in Chapter 62-302, F.A.C. The City of Lakeland shall, if required, provide data to SWFWMD regarding: Construction, operation, and maintenance of surface water management systems; NGVD levels; volumes and timing of water discharged, including total volume discharge during period of sampling and total discharges from the property.

2. Construction Conditions

a. This project must be constructed in compliance with and meet all applicable requirements set forth in Chapter 373, F.S., and Chapter 40D-4, F.A.C.

b. Any surface water discharged from the site during construction of the project shall meet State water quality standards at the property boundary or point of discharge to wetlands or State waters. If the discharge does not meet these standards, the discharge will be immediately stopped and the SWFWMD shall be notified of corrective action(s) taken to correct the violation(s). Turbidity shall not exceed 29 N.T.U. above background level. Turbidity shall be monitored at least once during discharge, or more often as determined by the project engineer or SWFWMD if needed, to ensure compliance.

c. Except as authorized by this certification for the surface water management system, any further land development, wetlands disturbance or other construction within the total land area of this site will require additional certifications in accordance with the SWFWMD's rules (Chapter 40D-4, F.A.C.).

d. All rights-of way and easement locations necessary to construct, operate and maintain all facilities, including uplands conservation/buffer areas and wetlands, which constitute the certified surface water management system, shall be reserved for water management purposes.

e. Construction of the discharge control and water quality treatment facilities which are part of the certified surface water management system shall be completed and operational prior to beneficial occupancy and use of the project development being served.

SECTION B: SPECIFIC CONDITIONS

f. Establishment and survival of littoral areas provided for stormwater quality treatment in wet detention systems shall be assured by proper and continuing maintenance procedures designed to promote viable wetlands plant growth of natural diversity and character. As-built drawings depicting the established wet detention treatment areas shall be submitted to the SWFWMD for inspection and approval upon completion of construction. Following as-built approval, perpetual maintenance shall be provided for the certified system.

g. Any existing wells in the path of construction shall be properly plugged and abandoned by a licensed water well contractor in accordance with Chapter 40D-3, and Rule 62-532.500(4), F.A.C.

h. All retention/detention pond side slopes shall be sodded and staked as necessary, to prevent erosion.

i. Any system alteration, including for augmentation into or withdrawal of water from the certified surface water management system, other than as specifically authorized by this certification, will require additional District certification consideration. The water level of stormwater detention ponds shall not be augmented by pumping or diversion of water into the ponds to artificially control their level above the design normal or beginning storage level.

j. The City of Lakeland shall perform the construction authorized in a manner so as to minimize any adverse impact of the system on fish, wildlife, natural environmental values, and water quality. The City of Lakeland shall institute necessary measures during the construction period, including full compaction of any fill material placed around newly installed structures, to reduce erosion, turbidity, nutrient loading and sedimentation in the receiving waters.

k. Off-site discharges of surface water during construction and development shall be made only through the facilities authorized by this certification.

l. In order to insure that the person who will construct the proposed work is identified as required by 373.413(2)(f), F.S., once the contract is awarded, the name, address, and telephone number of the contractor shall be submitted to the SWFWMD prior to construction.

m. The City of Lakeland shall immediately provide written notification to the SWFWMD upon beginning any construction authorized by this certification.

n. The operation and maintenance entity shall submit inspection reports for the surface water management system in the form required by the SWFWMD. For systems utilizing wet detention, the inspections shall be performed two (2) years thereafter.

o. The SWFWMD verified wetland boundaries shall be clearly delineated on the site prior to initial clearing and grading activities. The delineation shall endure throughout the construction period and be readily discernable to construction personnel and SWFWMD staff.

3. Project Information Requirements

a. Subsequent modifications to the drawings and supporting calculations submitted to SWFWMD which may significantly alter the quantity and/or quality of waters discharged off site shall also be submitted to the water management district for a

SECTION B: SPECIFIC CONDITIONS

determination that the modifications are in compliance with Chapter 40D-4, F.A.C., as appropriate, prior to the commencement of construction. However minor deviations from construction plans deemed necessary in the field, including, but not necessarily limited to changes in the number, size, and location of culverts and other structures, shall be allowed.

b. The SWFWMD and the City of Lakeland may mutually agree to vary the information requirements.

4. Unit 5

All stormwater is to be discharged into the existing McIntosh Power Plant Facility stormwater treatment units. Should there be any change in these treatment units that adversely affect the treatment of stormwater from the McIntosh Unit No. 5 these Conditions must be modified in accordance with General Condition XXIII. Modification of Certification.

B. Water Resource Management

1. General

a. SWFWMD and DEP authorized staff, upon proper identification, will have permission to enter, inspect and observe permitted and related facilities in order to determine compliance with the approved plans, specifications and conditions of this certification.

b. Nothing in this certification should be construed to limit the authority of the SWFWMD to declare a water shortage and issue orders pursuant to Section 373.175, F.S., or to formulate a plan for implementation during periods of water shortage, pursuant to Section 373.246, F.S. In the event of a water shortage, as declared by the SWFWMD Governing Board, the Licensee must adhere to reductions in water withdrawals as specified by the SWFWMD.

c. Prior to the construction, modification, or abandonment of an on-site well, the Licensee must submit a completed application form for a Water Well Construction Permit to the Department and SWFWMD. All construction, modification, or abandonment of water wells must be conducted under the supervision of a licensed water well contractor and must be performed in accordance with Chapter 40D-3, F.A.C. Construction of a well will require modification of the certification when such construction is other than that specified and described in the SCA. Prior to modification or abandonment of a well, the Licensee must file an amendment to the site certification application with the Department and the SWFWMD. Upon completion of the construction, modification or abandonment of each well, the Licensee must submit to SWFWMD and the Department a completion report for the well.

d. Leaking or inoperative well casings, valves, or controls must be repaired or replaced as required to put the system back in an operative condition acceptable to the SWFWMD. Failure to make such repairs will be cause for deeming the well abandoned in accordance with chapters 403 and 373, F.S., and the rules promulgated thereunder.

e. The Licensee must mitigate any adverse impact caused by withdrawals permitted herein on legal uses of water existing at the time of application. The Department has the right to curtail permitted withdrawal rate or water allocations if the withdrawals of water cause an adverse impact on legal uses of water which existed at the time of certification. Adverse impacts are exemplified by but not limited to:

SECTION B: SPECIFIC CONDITIONS

i) Reduction of water levels in an adjacent surface water body resulting in a significant impairment of the use of water in that water body;

ii) Saline water intrusion or introduction of pollutants into the water supply of an adjacent water use resulting in a significant reduction of water quality; and

iii) Change in water quality resulting in either impairment or loss of use of a well or water body.

f. The Licensee must mitigate any adverse impact caused by withdrawals permitted herein on adjacent land uses that existed at the time of permit application. The Department has the right to curtail permitted withdrawal rates of water allocations if withdrawals of water cause an adverse impact on adjacent land uses that existed at the time of certification. Adverse impacts are exemplified by but not limited to:

i) Significant reduction in water levels in an adjacent surface water body;

ii) Land collapse or subsidence cause by reduction in water levels; and

iii) Damage to crops and other types of vegetation.

2. Reclaimed Water

a. Reclaimed water is to be used in place of ground water from the on-site well field and public supply wells to meet the water needs of the power facility, except for steam cycle needs and potable uses.

b. The Licensee is not required to accept reclaimed water in amounts which exceed the power plant's demand and storage capacity.

3. Groundwater (Unit 3)

a. General

The use of groundwater shall be minimized to the greatest extent practicable.

b. Well Criteria

The well locations shall be approved by the Southwest Florida Water Management District. Design and construction of new wells shall be in accordance with the applicable rules of the Department of Environmental Protection and Southwest Florida Water Management District.

c. Groundwater Use Limitations

i) Groundwater used for makeup for the cooling tower for Unit No. 3 shall be limited to emergency use only, not to exceed 0.2166 million gallons per day on an average annual basis or 5.271 mgd on a maximum daily basis from 3 new wells.

ii) Daily water use from the new wells shall be reported quarterly to the Southwest Florida Water Management District.

4. Groundwater (Unit 5)

SECTION B: SPECIFIC CONDITIONS

a. In the event reuse water is not available, SWFWMD Identification (DID) numbers 31, 32, and 33 will be used as a stand-by supply for the cooling tower makeup water associated with McIntosh Unit No. 5.

i) The stand-by quantities will be:

DID No	Annual Average Daily (gpd)	Peak Month Daily (gpd)
31	798,900	3,240,000
32	798,900	3,240,000
33	798,900	3,240,000

ii) The combined total stand-by quantities from DID Nos. 31, 32, and 33 for cooling tower makeup water will be limited to 798,900 gpd Annual Average Daily and 3,240,000 gpd Peak Month Daily.

b. Groundwater regulatory aspects under SWFWMD's jurisdiction, except those associated with DID 31, 32, and 33 that pertain to McIntosh Unit No. 5, will be addressed under Water Use Permit (WUP) No. 200047.04 and any subsequent revisions to the WUP.

c. Wells Number 5 and 8, as identified in the Southwest Florida Water Management District (SWFWMD) Permit 200047.03 (dated August 27, 1996) may be used for raw makeup water for Unit 5.

d. Groundwater used for Unit 5, in simple cycle operation shall not exceed 500 gpm or a peak usage of 720,000 gallons/day (gpd) and an annual usage of 576,000 gpd, respectively.

5. Surface Water (Unit 5)

There will be no intake from or discharge to surface Waters of the State associated with the construction or operation of McIntosh Unit No. 5.

VII. DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES

Only herbicides registered by the U.S. Environmental Protection Agency and the Florida Department of Agriculture and Consumer Services shall be used at certified facilities. Herbicide applications will be in accordance with label directions and will be carried out by a licensed applicator, in compliance with all federal, state and local regulations. Herbicide applications shall be selectively applied to targeted vegetation. Broadcast application of herbicide shall not be used unless effects on non-targeted vegetation are minimized.

HISTORY

Certification (Unit 3) 12/11/78; signed by Governor Askew
Modified 03/04/80(A); signed by Governor Graham
Modified 09/23/80(B); signed by Governor Graham
Modified 08/24/88(C); signed by Governor Martinez
Modified 09/10/93(D); signed by Secretary Wetherell
Modified 02/14/96(E); signed by Secretary Wetherell
Modified 07/10/98(F); signed by Secretary Wetherell

SECTION B: SPECIFIC CONDITIONS

Certification (Unit 5) 06/01/00; signed by Governor Bush
Modified 08/06/01(H); signed by Deputy Secretary Bedwell
Modified 08/05/03(I); signed by Program Administrator Oven
Modified 01/18/06(J); signed by Program Administrator Oven
Modified 04/24/06(K); signed by Program Administrator Oven
Modified 04/04/07(M); signed by Program Administrator Halpin
Modified 09/06/07(N); signed by Program Administrator Halpin
Modified 10/02/07(L); signed by Program Administrator Halpin
Modified 07/01/08 (O); signed by Program Administrator Halpin
Modified 11/24/08 (P); signed by Program Administrator Halpin
Modified 11/30/11 (Q); signed by Program Administrator Mulkey
Modified 03/06/13 (R); signed by Program Administrator Mulkey

Attachment A

Certified Site/Areas/Facilities Delineation Map(s)

FIGURE 1

Plant ID: 3200
Plant Name: C.D. McIntosh Power Plant
Site Cert. No.: PA 74-06

Legend:

--- McIntosh Plant Boundary

Notes:

This is not a survey. Plant boundary is approximate.

References:

Area to be removed, Chastain-Skillman, Inc
Drawing ASL 9460.01, 2011.



Attachment B

Stormwater Management Plan(s) (to be attached)

Attachment C

Mitigation Plan(s) (to be attached, as applicable)

Attachment D

Landfill Disposal Areas Ground Water Monitoring Plan

1. Water Quality Monitoring Quality Assurance.

a. All field work done in connection with the facility's Water Quality Monitoring Plan shall be conducted in accordance with the Standard Operating Procedures (SOPs) described in DEP-SOP-001/01 (March 31, 2008) [or as replaced by successor SOPs], as referenced in Rule 62-160.210(1), F.A.C. All laboratory analyses done in connection with the facility's Water Quality Monitoring Plan shall be conducted by firms that hold certification from the Department of Health Environmental Laboratory Certification Program under Chapter 64E-1, F.A.C., as referenced in Rule 62-160.300(1), F.A.C. The SOPs utilized and the laboratory's list of certified test methods and analytes must specifically address the types of sampling and analytical work that are required by this Attachment [the "Water Quality Monitoring Requirements, Landfill Disposal Areas"] and shall be implemented by all persons performing sample collection or analysis related to this Attachment. Alternate field procedures and laboratory methods may be used if approved according to the requirements of Rules 62-160.220 and 62-160.330, F.A.C., respectively.

b. The field testing, sample collection and preservation, and laboratory testing, including the collection of quality control samples, shall be in accordance with the requirements of and methods approved by the Department in accordance with Rule 62-4.246 and Chapter 62-160, F.A.C. Approved methods published by the Department or as published in Standard Methods, or by A.S.T.M., or EPA methods shall be used.

2. Zone of Discharge.

a. The zone of discharge for this facility shall extend horizontally 100 feet from the limits of the landfill disposal areas [i.e., the closed northern landfill and the active southern landfill] or to the property boundary, whichever is less. The zone of discharge shall extend vertically through the surficial aquifer to the bottom of the intermediate confining unit which has been described at the facility to be the clayey strata of the Hawthorn Group. Compliance with the zone of discharge will be measured in the monitor wells completed in the Floridan aquifer, and in the monitor wells completed in the surficial aquifer and the permeable zones within the intermediate confining unit [i.e., the "intermediate aquifer"] that are designated as "compliance wells" based on their proximity to the property boundary [see [Condition #3.](#), below].

b. The facility owner shall ensure that the primary standards for Class G-II ground waters referenced in Rule 62-520.420(1), F.A.C., will not be exceeded at the boundary of the zone of discharge. The facility owner shall ensure that the minimum criteria for ground water referenced in Rule 62-520.400(1), F.A.C., will not be exceeded outside the footprint of the landfill disposal areas [i.e., the closed northern landfill and the active southern landfill]. In accordance with Rule 62-520.520(1), F.A.C., the Department considers the facility to be an "existing installation" that is exempt from compliance with the secondary standards for Class G-II ground water referenced in Rule 62-520.420(1), F.A.C.

Lakeland Electric - C.D. McIntosh, Jr., Power Plant, PA 74-06
Attachment D - Water Quality Monitoring Requirements, Landfill Disposal Areas

3. Ground Water Monitor Well Locations. The ground water monitoring system locations for the closed northern landfill and the active southern landfill areas at the C.D. McIntosh, Jr. Power Plant are shown on Drawing No. 23-1018-3002, entitled "McIntosh Power Plant, Monitoring Well Locations," prepared by Lakeland Electric, received September 14, 2012, as follow:

Well #	<u>Scheduling</u> Notes	WACS Testsite #	Aquifer Monitored	Well Designation	Location
MW-2S	A	27267	Surficial	Compliance	See Drawing
MW-10S	A	27272	Surficial	Intermediate	↓
MW-17S	A	27277	Surficial	Intermediate	↓
MW-18S (R)	A	27278	Surficial	Intermediate	↓
MW-21S	A	27282	Surficial	Compliance	↓
MW-22S	A	27283	Surficial	Compliance	↓
MW-23S	A	27284	Surficial	Compliance	↓
MW-23I	A	27285	Surficial	Compliance	↓
MW-24S	A	27286	Surficial	Compliance	↓
MW-25S	A	27287	Surficial	Intermediate	↓
MW-26S	A	27288	Surficial	Intermediate	↓
MW-W14	A	27310	Surficial	Compliance	↓
MW-10I	A	27314	Intermediate	Intermediate	See Drawing
MW-18I	A	27316	Intermediate	Intermediate	↓
MW-22I	A	27318	Intermediate	Compliance	↓
MW-2D (R)	A	27313	Floridan	Compliance	See Drawing
MW-10D	A	27303	Floridan	Compliance	↓
MW-17D	A	27302	Floridan	Compliance	↓
MW-21D	A	27304	Floridan	Compliance	↓
MW-2I	B	27312	Intermediate	Abandoned	
MW-3S (R)	B	27268	Surficial	Abandoned	
MW-3I	B	27269	Intermediate	Abandoned	
MW-6S	B	27270	Surficial	Abandoned	
MW-6I	B	27271	Surficial	Abandoned	
MW-14S (R)	B	27273	Surficial	Abandoned	
MW-14I	B	27274	Surficial	Abandoned	
MW-15S	B	27275	Surficial	Abandoned	
MW-16S (R)	B	27276	Surficial	Abandoned	
MW-16I	B	27315	Surficial	Abandoned	
MW-19S	B	27279	Surficial	Abandoned	
MW-19I	B	27280	Surficial	Abandoned	
MW-20S	B	27281	Surficial	Abandoned	
MW-20I	B	27317	Intermediate	Abandoned	
MW-27S	B	27289	Surficial	Abandoned	
MW-28S	B	27290	Surficial	Abandoned	
MW-28I	B	27291	Surficial	Abandoned	
MW-29S	B	27292	Surficial	Abandoned	
MW-30S	B	27293	Surficial	Abandoned	
MW-31S	B	27294	Surficial	Abandoned	
MW-32S	B	27295	Surficial	Abandoned	
MW-33S	B	27296	Surficial	Abandoned	
MW-34S	B	27297	Surficial	Abandoned	
MW-35S	B	27298	Surficial	Abandoned	
MW-35I	B	27319	Intermediate	Abandoned	
MW-36S	B	27299	Surficial	Abandoned	
MW-36I	B	27320	Intermediate	Abandoned	
MW-37S	B	27300	Surficial	Abandoned	
MW-38S	B	27301	Surficial	Abandoned	
MW-38D	B	27321	Floridan	Abandoned	
W-2 (R)	B	27306	Surficial	Abandoned	
W-9	B	27308	Surficial	Abandoned	
W-10 (R)	B	27309	Surficial	Abandoned	

Lakeland Electric - C.D. McIntosh, Jr., Power Plant, PA 74-06
Attachment D - Water Quality Monitoring Requirements, Landfill Disposal Areas

3. Ground Water Monitor Well Locations (continued).

Scheduling Notes:

A = existing monitor well; construction details previously provided; to be included in the sampling events described in Condition #4.c., and #4.d.

B = existing monitor well **to be abandoned within 90 days of approval of the "Water Quality Monitoring Requirements"** in accordance with Condition #6.

The monitor wells are to be clearly labeled and easily visible at all times, and shall be kept locked to minimize unauthorized access.

4. Ground Water Sampling. The locations, parameters, and frequencies specified herein represent the minimum requirements for ground water monitoring. Additional samples, wells, and parameters may be required based upon subsequent analysis. Method Detection Limits must be reported at or below the Maximum Contaminant Levels established for the individual parameters to demonstrate compliance with Class G-II ground water standards referenced in Chapter 62-520, F.A.C. Compliance with ground water standards will be based on analysis of unfiltered samples.

a. Ground water levels shall be measured **semi-annually** (during the periods from January 1-June 30, and from July 1-December 31, of each year) including all sampling events described in [Condition #4.c.](#), and [#4.d.](#), at all active monitor wells and piezometers listed in [Condition #3.](#), to a precision of 0.01 foot. Ground water surface contour maps shall be prepared for each sampling event to include water elevations (using a consistent, nationally recognized datum) calculated for each monitor well and piezometer.

b. An "initial sampling event" shall be conducted **within 7 days of installation and development** of all new monitor wells for analysis of the parameters listed in Rules 62-701.510(8) (a) and (8) (d), F.A.C., including:

Field Parameters	Laboratory Parameters	
Static water levels	Total ammonia	Iron
before purging	Chlorides	Mercury
Specific conductivity	Nitrate	Sodium
Temperature	Total dissolved solids (TDS)	
pH	Those parameters listed in	
Dissolved oxygen	<u>40 CFR Part 258, Appendix II</u>	
Turbidity		
Color & sheens (by obs.)		

c. The locations designated as intermediate wells and compliance wells as listed in [Condition #3.](#), shall be sampled **semi-annually** for analysis of the following parameters:

Field Parameters	Laboratory Parameters		
Static water levels	Chloride	Arsenic	Manganese
before purging	Gross Alpha	Cadmium	Nickel
Specific conductivity	Nitrate	Chromium	Selenium
Temperature	Sulfate	Iron	Sodium
pH	TDS	Lead	Vanadium
Dissolved oxygen			
Turbidity			
Color & sheens (by obs.)			

Lakeland Electric - C.D. McIntosh, Jr., Power Plant, PA 74-06
Attachment D - Water Quality Monitoring Requirements, Landfill Disposal Areas

4. Ground Water Sampling (continued).

d. To demonstrate that the parameters listed in [Condition #4.c.](#), remains appropriate, the locations designated as intermediate wells and compliance wells in [Condition #3.](#), shall be sampled **every 5 years during the second half sampling event** [starting with the 2012 second half event] for analysis of the following parameters:

Field Parameters	Laboratory Parameters	
Static water levels	Total ammonia	Antimony
before purging	Chloride	Arsenic
Specific conductivity	Fluoride	Barium
Temperature	Gross Alpha	Beryllium
pH	Nitrate	Boron
Dissolved oxygen	Sulfate	Cadmium
Turbidity	TDS	Chromium
Color & sheens (by obs.)		Copper
		Iron
		Lead
		Manganese
		Mercury
		Molybdenum
		Nickel
		Selenium
		Silver
		Sodium
		Thallium
		Vanadium
		Zinc

5. Ground Water Monitor Well Construction. Prior to construction or abandonment of any new or replacement monitor wells and piezometers, the shall request and receive Department approval of proposed modifications to this Attachment [the "Water Quality Monitoring Requirements, Landfill Disposal Areas"]. All proposed modifications shall be submitted in accordance with [Section A, Condition #XXI](#) [Procedures for Post-Certification Submittals] of the License for this facility. The following information is required to be submitted **within 90 days of new or replacement well installation**, or as stated below:

a. Construction details for all new or replacement wells and piezometers shall be provided to the Department's Southwest District Office, Solid Waste Section on Department Form #62-701.900(30), Monitoring Well Completion Report.

b. **Within one week of well completion and development**, each new or replacement well shall be sampled for the parameters listed in [Condition #4.b.](#), to comply with the requirements of Rules 62-701.510(8) (a), and 62-701.510(8) (d), F.A.C.

c. A surveyed drawing shall be submitted in accordance with Rule 62-701.510(3)(d)(1), F.A.C., showing the location of all monitor wells and piezometers (active and abandoned) horizontally located in degrees, minutes and seconds of latitude and longitude, and the elevation of the top of the well casing to the nearest 0.01 foot, using a consistent, nationally recognized datum. The surveyed drawing shall include the monitor well or piezometer identification number, and the locations and elevations of all permanent benchmarks and/or corner monument markers at the site. The survey shall be conducted by Florida Licensed Professional Surveyor and Mapper.

6. Well Abandonment. All monitor wells and piezometers not listed in [Condition #3.](#), and not a part of this Attachment [the "Water Quality Monitoring Requirements, Landfill Disposal Areas"] shall be plugged and abandoned in accordance with Rule 62-532.500(5), F.A.C., and the rules of the Southwest Florida Water Management District. The facility owner shall submit a written report to the Department **within 90 days of well/piezometer abandonment** verifying proper abandonment. A written request for exemption to the abandonment of a well/piezometer must be submitted to the Department's Solid Waste Section for approval.

7. Verification/Evaluation Monitoring. If at any time monitoring parameters are detected at concentrations significantly above background water quality, or exceed the Department's water quality standards or minimum criteria specified in Chapter 62-520, F.A.C., in any location designated as an intermediate well, the facility owner has 30 days from receipt of the sampling results to resample the monitor well(s) to verify the original analysis. Should the facility owner choose not to resample, the Department will consider the water quality analysis as representative of current ground water conditions at the facility. If the data is confirmed, or if the facility owner chooses not to resample, the facility owner shall notify the Department in writing within 14 days of this finding. Upon notification by the Department, the facility owner shall initiate evaluation monitoring as described in Rules 62-701.510(7)(a) and 62-701.510(7)(b), F.A.C. If monitoring parameters are detected and confirmed at concentrations significantly above background water quality, and exceed the Department's water quality standards or minimum criteria in any location designated as a compliance well, the facility owner shall notify the Department in writing within 14 days of this finding and shall initiate corrective actions as described in Rule 62-701.510(7)(c), F.A.C.

8. Surface Water Sampling. All surface water bodies that may be affected by a contaminant release at the facility shall be monitored, except bodies of water contained completely within the property boundaries of the site which do not discharge from the site to surface waters (Rule 62-701.510(4), F.A.C.).

a. At this time, the collection of surface water samples for laboratory analysis is not required as part of this Attachment [the "Water Quality Monitoring Requirements, Landfill Disposal Areas"] for monitoring associated with the closed northern landfill area or the active southern landfill area. Surface water monitoring at the facility shall be conducted in accordance with General Condition XXX.B., of the License for this facility.

b. Surface water levels shall be measured at the staff gauges located in Fish Lake, Lake B, Lake C and Lake D as shown on Drawing No. 23-1018-3002, entitled "McIntosh Power Plant, Monitoring Well Locations," prepared by Lakeland Electric, received September 14, 2012, during all ground water sampling events described in [Conditions #4.c., and #4.d.](#), to a precision of 0.01 foot. The water table surface elevation contour maps of the surficial aquifer shall be prepared for each set of water level measurements including the ground water surface elevation (using a consistent, nationally recognized datum) calculated for each monitor well and piezometer, and surface water elevations (using a consistent, nationally recognized datum) calculated for each of the above-listed staff gauges. The contour maps shall be submitted to the Department in the reports for the routine ground water sampling events [\[see Condition #10.a., below\]](#).

9. Leachate Sampling. As the closed northern landfill area and active southern landfill area were not constructed with a liner and leachate collection system, the facility is exempt from the requirements to collect leachate samples for laboratory analysis.

10. Water Quality Reporting Requirements. The results of each water quality sampling event conducted in proximity to the landfill disposal areas of the C.D. McIntosh, Jr., Power Plant to comply with this Attachment shall include Electronic Data Deliverable (EDD) reports that provide:

a. Required water quality monitoring reports and all analytical results shall be submitted in hard copy and electronically. Water quality monitoring reports submitted electronically shall be provided in Adobe ["pdf"] file format. The water quality EDD report shall be provided to the Department in an electronic format consistent with requirements for importing the data into the Department's databases as summarized on the Department's web site at:

<http://www.dep.state.fl.us/waste/categories/shw/pages/ADaPT.htm>.

Water quality monitoring reports shall be signed and sealed by a Florida registered professional geologist or professional engineer with experience in hydrogeological investigations, and shall provide the information required by Rules 62-701.510(9)(a)1 through 62-701.510(9)(a)10, F.A.C., including:

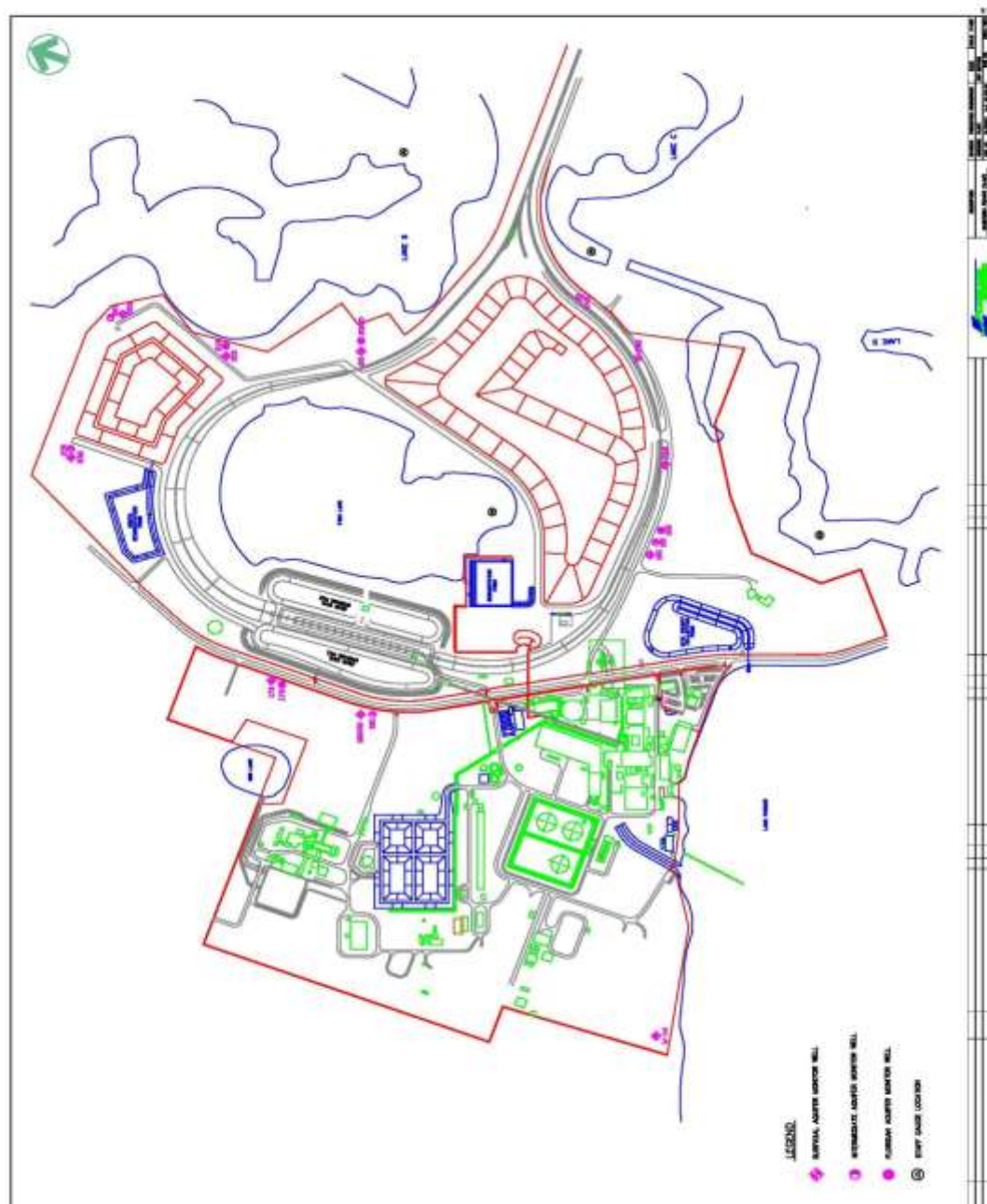
1. Cover letter;
2. Summary of exceedances and recommendations;
3. Ground water surface elevation contour maps for the surficial aquifer;
4. Chain of custody forms;
5. Water level measurements [ground water and surface water], water surface elevation table;
6. Water Quality Monitoring Certification, using Department Form #62-701.900(31);
7. Appropriate sampling information on Department Form #FD 9000-24 (DEP-SOP-001/01); and,
8. Laboratory and Field data, and error logs, as applicable. [In addition to the Adobe "pdf" file format, this data and associated error logs shall be submitted in an ADaPT-compatible, comma separated text file format.]

The report of results shall be submitted to:

- Department of Environmental Protection, Southwest District Office, Solid Waste Section, 13051 North Telecom Parkway, Temple Terrace, FL 33637-0926; [hard copy and electronic copy of results] and,
- Department of Environmental Protection, Solid Waste Section, 2600 Blair Stone Road, MS 4565, Tallahassee, FL 32399-2400 [electronic copy of results only].

b. The facility owner shall submit to the Department the results of analyses reported for each sampling event conducted at the facility by the following due dates:

1. **Condition #4.b.** - results of ground water "initial sampling events" shall be submitted **within 60 days from completion of laboratory analyses;**
2. **Condition #4.c.** - results of ground water routine semi-annual sampling events shall be submitted **within 60 days from completion of laboratory analyses and no later than January 15th and July 15th of each year** for the periods July 1 to December 31, and January 1 to June 30, respectively;
3. **Condition #4.d.** - results of ground water "expanded parameter list" sampling events conducted at 5-year intervals shall be submitted **within 60 days from completion of laboratory analyses and no later than January 15th every five years** [the initial report for the "expanded parameter list" is due January 15, 2013]; and,
4. **Condition #7.** - results of ground water verification events shall be submitted **within 60 days from completion of laboratory analyses.**



Attachment E

Combustion By-Product Storage Facility Operation Manual

**OPERATIONS MANUAL
COMBUSTION BY-PRODUCT STORAGE FACILITY
C.D. MCINTOSH POWER PLANT**

**CITY OF LAKELAND, FLORIDA
DEPARTMENT OF ELECTRIC UTILITIES**

B&V Project 17757
March 1992
Rev. 0

B&V Project 136614
Revised February 2004
Rev. 1

S&W Project No. 11492703
Revised January 3, 2006
Rev. 2

Golder Project 15-45454.3
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Rev. 3

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1.0 INTRODUCTION

The operational requirements of the City of Lakeland (COL), C. D. McIntosh Combustion By-Products Storage Facility (Facility), also known as the Byproduct Storage Area (BSA), are provided in this Operations Manual, which had been originally submitted and approved by the Florida Department of Environmental Protection (FDEP), formerly the Florida Department of Natural Resources in March 1992 and revised in February 2004, January 2006, and January 2018.

Golder has updated this Operations Manual in coordination with Lakeland Electric to reflect current information, procedures, and include reference information. This manual has also been updated to reference Plans developed in response to the Coal Combustion Residual (CCR) Rule (40 Code of Federal Regulations Part 257 Subpart D), including the CCR Fugitive Dust Control Plan, Run-on and Run-off Control System Plan, Closure Plan and Post-Closure Care Plan. Golder has relied on previous versions of the manual for historical context and previous engineering studies.

This manual addresses the following topics:

- Storm water management including collection, sedimentation control, and disposal.
- Development of Facility expansion.
- Operation of Facility development.

The scope of this manual is to provide the physical characterization and disposition of the materials handled at the Facility as well as a description of the management practices utilized by Facility personnel for storage, utilization, and reclamation of the by-products. Best management practices are utilized to promote by-product reuse, minimize impact to soil and groundwater, maximize storage volume of the Facility, and minimize impacts to the present plant operation and storm water management system.

This Operations Manual addresses the following:

- Stage and cell development, including traffic considerations.
- Stage and cell closure.
- Operational controls, including management of storm water, leachate and dust.

2.0 MATERIAL CHARACTERISTICS

2.1 Properties of Materials

This section identifies the various materials handled at the Facility, including a description, source, approximate generation rate, and storage options. The various materials that will be handled at the Facility include:

- Bottom Ash
- Fly Ash
- Gypsum
- Secondary Materials

2.2 Bottom Ash

Characteristics: Bottom ash is formed from the non-combustible constituents of coal during the combustion process. These non-combustion constituents are commonly referred to as ash. As coal combusts in the boiler, the heavier ash particles fall from the combustion zone into collection hoppers located at the bottom of the boiler. Approximately once per eight-hour shift, plant operators sluice the accumulated bottom ash (and water) from the hopper to the hydrobins where it is then dewatered before being placed in the Facility. Processed bottom ash is granular and porous in appearance. The color ranges from gray to gray-black.

Generation: Source and Rate: Bottom ash is generated and collected at a rate of approximately 6,743 tons per year (dwb). This approximation is based on the coal containing 8.59% ash. The bottom ash generation rate will correlate with the actual ash content of the fuel and plant operating hours. The portion of ash forming bottom ash represents approximately 14% of the coal's total ash content.

Destination and Utilization: After water is added for cooling purposes, the bottom ash is hydraulically transported to hydrobins that decant and drain the water. The end use market for bottom ash is historically very strong, and it is reasonable to expect that all of the bottom ash will be sold under contract for use in the production of concrete and cement. Bottom Ash generated will only be stored on site if there are marketing issues with the buyers.

2.2.1 Fly Ash

Characteristics: Fly ash is defined as the finely divided residue produced from the combustion of coal, transported by flue gas, and collected by electrostatic precipitation. Fly ash exhibits a gray to gray-brown appearance. The individual particles are referred to as cenospheres, small round particles of fly ash.

Generation Source and Rate: Fly Ash is generated and collected at a rate of approximately 41,421 tons per year (dwb). This is based on an ash content value of about 8.59%, with about 86% of the coal ash being converted to fly ash.

Destination and Utilization: All fly ash is deposited into the on-site silo for temporary storage. From the silo, the fly ash that is sold is loaded into a pneumatic tanker truck. The fly ash that cannot be sold is processed through the existing byproduct processing facility where water is added and the material is transported to the Facility for storage. Fly Ash generated will only be stored on site if there are marketing issues with the buyers. A small amount of Fly Ash may be used to stabilize other waste materials prior to disposal on-site and will not be reclaimed.

2.2.2 Gypsum

Characteristics: Gypsum is the by-product formed in the Flue Gas Desulfurization (FGD) System. Gypsum is formed as a result of the chemical reaction between limestone (CaCO_3) and sulfur dioxide (SO_2) within the FGD system. The gypsum is dewatered and is eventually discharged from a rotary drum vacuum filter as a moist filter cake. The gypsum is very fine, with an average particle diameter of 50 microns. The color of the gypsum is dependent on the color of the reagent limestone and the amount of fly ash that enters the FGD system. It will range from light brown to white.

The gypsum is then transported by conveyor belt to the stack-out pad for sale or storage at the Facility. In storage, gypsum tends to form an outer crust that protects the inner pile from wind and rain erosion.

Generation Source and Rate: The design rate of FGD by-product generation from the FGD System and FGD Waste Handling System is estimated to be 69,016 tons per year (wwb) based upon a 2.29% sulfur content in the fuel.

Destination and Utilization: The FGD system produces a quality, commercial grade gypsum. The end market for this material is historically very strong, and it is reasonable to assume that all gypsum will be sold under contract for use in the production of cement. Only a fraction of the Gypsum is anticipated to be placed into long term storage on-site and could be reclaimed in the future for beneficial use.

2.2.3 Secondary Materials

Characteristics, Generation Source and Rate: Other operations at the Plant generate other incidental materials that are placed in the Facility. These materials are listed in Table 1 (below).

Destination and Utilization: The materials presented above can be categorized into 3 main materials: PWTS Sludge solids, PWW Pond Dredged solids, and Miscellaneous. The PWTS Sludge and Miscellaneous materials have no economic value; therefore, they are placed in the Facility for disposal. The PWW Pond Dredged solids will primarily be comprised of gypsum, and be used off-site for beneficial use.

TABLE 1 – SECONDARY MATERIALS

Process/ Sample Area	Source Area	Item	Material	Frequency	Volume (3,000 gallon truck loads)
Material Holding Cell	Unit 3	turbine area sump	sand/grit/water	outage	4
		hotwell	sand/grit/water	outage	2
		condensate pump	sand/grit/water	outage	1
		precipitator hoppers	fly ash	outage	40
		economizer hoppers	fly ash	outage	8
		penthouse	fly ash	outage	4
		windboxes	fly ash	outage	2
		regen. sump	bottom ash, fly ash	monthly	7
		precip. sump	fly ash	6 months	5
		air heater hoppers	fly ash	outage	4
		air heater sumps	fly ash	outage	2
		bottom ash hoppers	bottom ash	outage	6
		secondary air ducts	fly ash	outage	5
		quencher cross over duct	fly ash	outage	3
		quencher inlet duct	fly ash	outage	2
		fly ash trunk lines	fly ash	outage	8
	Condensate Polisher	condensate polisher sump	sand/grit/water	outage	4
		green sand filter media	green sand	yearly	1
	Scrubber	air sump	gypsum	monthly	3
		reheat sump	gypsum/sand/water	3 months	1
		makeup sump	gypsum/sand/water	outage	3
		cooling tower blowdown	sand/grit/water	outage	3
		stack	gypsum	outage	10
		31 absorber module	gypsum	outage	15
		32 absorber module	gypsum	outage	15
		outlet duct	gypsum/fly ash	outage	7
		slurry storage tank	gypsum	outage	2
		mill product tank	gypsum	outage	2

TABLE 1 – SECONDARY MATERIALS (continued)

Process/ Sample Area	Source Area	Item	Material	Frequency	Volume (3,000 gallon truck loads)
Material Holding Cell (cont.)	Limestone	limestone area sump	limestone/gypsum	6 months	1
		limestone pit	limestone	6 months	4
		reclaim sump	fly ash/bottom ash/gypsum/quicklime	weekly	2
		co-132 sump	fly ash/bottom ash/gypsum/quicklime	weekly	1
		dewatering bin sump	fly ash/bottom ash/gypsum/quicklime	weekly	3
		surge tank	gypsum	outage	10
		fly ash silo	fly ash	outage	50
	CSI	road run off sump	fly ash/grit/sand/water	3 months	1
		brine lagoon	fly ash/grit/sand/water	yearly	50
		thickener tank	gypsum	outage	60
		thickener underflow sump	gypsum	3 months	1
		quicklime silo	quicklime	yearly	1
	Storage Facility	south sedimentation pond	fly ash/bottom ash/gypsum/quicklime	quarterly	2
	Miscellaneous Area	combined sump	CTs & PWTS blowdown water	yearly	3
		all manholes	sand/grit/water	as requested	
	Units 1 and 2	u-2 cooling tower	sand/grit/water	outage	3
	PWTS	thickener	sludge/water	quarterly	10
		wash recover water	sludge/water	quarterly	10
Process Waste Treatment Sludge		Sludge drying bed	sludge solids	biweekly	15 CY
Stackout Pad (Temporary Byproduct Staging Area)		PWW Pond	gypsum/fly ash/bottom ash/coal	2 year	20,000 CY

Notes:

- 1 The Material holding cell is constructed on the stack-out pad. Material is mixed within the cell, and then hauled to the storage facility
- 2 The process waste treatment sludge is mixed directly in the storage facility
- 3 The process waste treatment sludge is mixed directly in the storage facility
- 4 CSI = Conversion System Incorporated – Designed Process Area
- 5 PWTS = Process Water Treatment System

2.3 Quantities of Materials

From historical production data, the following rates are predicted:

Material	Dry Density (lb/ft³)	Amount Generated (tons per month)
Bottom Ash	80	613 [1]
Fly Ash	85	3,766 [2]
Gypsum	80	6,274 [3]
Secondary Materials	70	551 [4]

Notes:

[1]-Based on a generation rate of 6,743 tons/year (dwb).

[2]- Based on a generation rate of 41,421 tons/year (dwb).

[3]- Based on a generation rate of 69,016 tons/year (wwb).

[4]- Based on an average generation rate of 318 tons/year (dwb) of PWTS Sludge, 2,835 tons/year (dwb) of Process Wastewater Pond Dredgings, and 3,460 tons/year (dwb) of Miscellaneous Materials.

3.0 SITE DESCRIPTION

3.1 Site Conditions

The original expansion area of the facility was formerly a phosphate pit. The site is confined by the plant coal unloading loop railroad.

The original design included several subsurface investigations that were performed in and around the Facility during different phases of the plant design and operation (Main 1981, B&V 1991). In general the soil stratigraphy underlying the Facility consists of a very loose to loose cast overburden fill sand with silty or clayey lenses or layers overlying the remnant phosphate matrix which overlies the dense hard calcareous silt or clay with decomposed lime rock layers of the Hawthorn Formation. The thickness of the overburden fill materials vary in both depth and thickness across the site.

The normal ground water level is shallow below the existing Facility and is generally consistent with the old phosphate pit water level elevation of approximately 132.0 feet. The ground water level varies with seasonal rainfall.

3.2 Existing Storage System Facilities

3.2.1 Storage System

The materials currently generated at the plant are temporarily stockpiled west of the Plant and south of the coal unloading structure on a concrete pad designated the Temporary Byproduct Staging Area. The material to be stored is excavated from the stacker stockpiles and placed into 40 ton off-road trucks by front end loaders.

The material is transported by the off-road trucks along an asphalted haul road to the Facility. The material is spread in horizontal lifts by dozer and compacted by a smooth steel drum roller. As a cell is progressively filled, it is covered with topsoil (intermediate soil cover) and seeded. Facility access ramps are constructed of compacted material or soil as required.

Stormwater runoff entering the existing sedimentation basin is treated as contact water (stormwater that has contacted CCR) and is pumped to the existing process waste water ponds. Excess water from the process waste water ponds is either utilized in the plant, or treated at the on-site treatment facilities. None of the water entering the sedimentation basin reaches Fish Lake. At the present time, clean storm water runoff (non-contact stormwater) from the Facility site drains into Fish Lake. The stormwater runoff controls for the BSA are further outlined and defined in the Run-On and Run-Off Control System Plan (Golder 2016a).

The Facility north of the main plant area reached capacity in early 1992. The capacity of the present operating Facility inside the rail loop is not expected to reach maximum capacity due to the economic value and ability to sell and/or reclaim and sell fly ash, bottom ash and gypsum and the minor fill rate of the secondary materials. A capacity analysis was performed to estimate the life of the facility in the event any of the materials were unable to meet buyer requirements. Based on conservative storage rates, the capacity of the facility is projected to be reached in 2025 assuming that 50% of all combustion byproducts are sold for beneficial reuse. The projected date in which the facility reaches capacity could be extended based upon actual plant operation and actual amounts of combustion byproducts sold for beneficial reuse.

4.0 EXPANSION AREA SITE DEVELOPMENT

4.1 General

The objective of the design is to maximize the storage volume of the Facility and minimize impacts to the present plant operation and storm water management system. This operations manual provides the arrangement and detailed cross sections for the continued development of the Facility, including:

- Grading and development.
- Haul roads.
- Storm water diversion berms, collection ditches, and culverts.
- Sedimentation pond.

4.2 Site Preparation

4.2.1 Site Grading

The Facility occupies the area of an old phosphate pit. The phosphate pit was entirely within the C. D. McIntosh site boundaries and was not under the jurisdiction of the Department of Natural Resources.

The old phosphate pit covered an area of approximately 12 to 15 acres with an average depth of 20 feet. The underlying materials below the initial portion of the Facility consist of very loose to loose cast overburden fill sand with silty or clayey layers overlying dense cemented silt clay or decomposed limerock of the Hawthorne Formation. The N- values of the fill material as recorded in the Ardaman & Associates exploration for the September 1990 Facility feasibility study were as low as zero for a 5 to 10 foot thickness of material.

Bordering the currently operating Facility on the north and east sides is the plant coal unloading loop railroad. The railroad embankments are constructed on the same loose cast fill deposits encountered in the phosphate pit by the recent Ardaman borings, and as logged in the earlier investigations performed for C. T. Main.

North of the currently operating Facility is a Department of Natural Resources (DNR) phosphate pit. East of the coal loop, on City of Lakeland property, are wetlands and small ponds. These ponds are reportedly remnants of previous phosphate mining in the area.

Site grading was originally performed under Specification 17757.71.0201 "Stabilized Sludge Landfill General Construction" (B&V 1991). The initial site grading is provided on the following Black & Veatch drawings (B&V 1991):

<u>Drawing No.</u>	<u>Rev. No.</u>	<u>Title</u>
17757-CSTF-S3380	0	Stabilized Sludge Landfill Expansion Area Grading Plan
17757-CSTF-S3381	1	Stabilized Sludge Landfill Expansion Detail Grading Plan SHT-1
17757-CSTF-S3382	1	Stabilized Sludge Landfill Expansion Detail Grading Plan SHT-2
17757-CSTF-S3383	1	Stabilized Sludge Landfill Expansion Detail Grading Plan SHT-3
17757-CSTF-S3384	1	Stabilized Sludge Landfill Expansion Sections and Details

The site grading consisted primarily of backfilling of the pit by end dumping clean sand tailings from above the water and compaction by conventional earth moving equipment above the water table. **The phosphate pit was filled in 1992.**

4.2.2 Stability

The stability of the material currently being placed in the Facility had previously been evaluated for a vertical expansion in February 2004 (B&V 2004)) and found to be stable for 3H:1V side-slopes up to elevation 252 feet NGVD. The stability of the Facility was analyzed for a shear failure through the sand fill underlying the Facility. Conservative parameters were used to provide assurance against slope stability failure of the Facility. The design parameters for the compacted by-product and the sand fill below the Facility are provided below.

Testing performed on the compacted stabilized by-product solids indicates a median unconfined compressive strength of 8,800 pounds per square foot (psf) at 120 days. This is equivalent to a cohesion of 4,400 psf. To allow for deviations in the strength of the compacted stabilized solids as tested, a cohesion of 2,000 psf was used in the analysis. The stabilized solids parameters used in the stability analyses are as follows:

Moist Unit Weight	=	90 pcf
Cohesion	=	2,000 psf
Angle of Internal Friction	=	0 degrees

From the soil borings and tests in the sand fill below the Facility, the fill material is variable in density with large areas of low relative density. For this reason a low angle of internal friction, equivalent to a relative density of zero percent for a silty sand soil, was chosen. The material parameters used in the stability analyses are as follows:

Total Saturated Unit Weight	=	90 pcf
Cohesion	=	0 psf
Angle of Internal Friction	=	25 degrees

With the process modifications (Forced Oxidation Conversion Project – S&W 2005) at the FGD system, the Facility will be receiving the byproducts as separate streams instead of as a single stream in which the byproducts have been mixed together. The materials that are not sold will be placed in the Facility and compacted in lifts for longer term storage. The stability and settlement of the existing Facility has been re-evaluated to accommodate the different engineering properties that are anticipated.

Based on information from other similar facilities, the following characteristics are used for the materials being generated by the Plant:

Material	Dry Unit Weight (PCF)	Cohesion (PSD)	Angle of Internal Friction(degrees)
Bottom Ash	80	0	30
Fly Ash	85	0	34
Gypsum	80	0	30
Secondary Materials	70	0	15

Stability Evaluation

The evaluation on the stability of the material that will be placed in the Facility after the Plant modifications considered all the materials that would likely be placed in the Facility. Although a variety of scenarios are possible, the likely scenario evaluated due to strength of end-use markets includes when the Facility receives primarily a mixture of Secondary Materials. This mixture, comprised primarily of PWTs sludges, will be mixed in the Facility at a 1:1 ratio with other materials (i.e, fly ash, lime, water) to form a composite that closely resembles the pozzolanic material that had historically been placed in the Facility prior to the FGD system conversion. Due to its similar characteristics to the pozzolanic material previously placed in the Facility, the stabilized secondary materials will remain stable in accordance with the parameters established in the previous stability analysis by Black & Veatch (B&V 2004).

In the unlikely event that the end-markets require the material being generated by the Plant to be placed in the Facility, the stability of the weakest material was evaluated. The worse-case scenario when considering the strength of the material being placed in the Facility as the limiting condition for evaluating stability would be if all the gypsum from the Plant would be placed in the Facility. By calculating a stable exterior slope using the most conservative parameters for materials being placed in the Facility, this results in a stable exterior slope for all materials being placed in the Facility.

Slope stability analyses were performed to determine: (i) the allowable maximum side-slope and the corresponding minimum shear strength required within the sludge/sand mixture to achieve adequate factors of safety against slope failure, and (ii) factors of safety against global slope failure through the clay

layer as well as through the existing underlying pozzolanic materials. In these analyses, it was assumed that the maximum landfill elevation would remain 252 feet.

Internal Slope Stability

The internal slope stability of materials will depend on both its shear strength and the fill side-slope. For this evaluation, the material to be disposed above the existing pozzolanic material will primarily consist of gypsum. Based on information developed from similar sites, a conservative value for an effective friction angle of 15 degrees was used in the evaluation. A long-term slope stability analysis using this friction angle shows that the fill side-slope should be limited to a maximum of 5.5H:1V. Also, if the material is found to be cohesive in nature, it should have a minimum undrained shear strength of 900 psf to achieve a minimum factor of safety of 1.5 against deep circular failure under the short-term loading conditions.

Global Slope Stability

Sliding block type failure surfaces were investigated through the thin layer of clay (approximately 6 feet thick) that may be present below the Facility. According to Black & Veatch (2004), if present, the clay is likely to be discontinuous; therefore, the analysis performed using a continuous layer is conservative. Because the clay layer is relatively thin (i.e., assumed to be 6 feet thick) and is also likely to have double drainage boundary conditions, it is very likely to consolidate concurrent with placement of overburden material. Therefore, a long-term analysis using an effective friction angle (ϕ') is appropriate. The results of the analysis show that a ϕ' of 12 degrees is required within the clay to obtain a minimum factor of safety of 1.5. Based on a review of the description of the clay by Black & Veatch (2004), the clay can meet this requirement.

Assuming a cohesion intercept of 2,000 psf for the existing in-place pozzolanic material (B&V 2004), both circular and block type failure surfaces through the existing in-place pozzolanic materials yielded acceptable factors of safety. All materials, except gypsum, being stored within the Facility can be placed at 3H:1V final exterior slope. However, gypsum stored in the Facility for long-term storage, final exterior slopes should be established at 5.5H:1V (S&W 2005).

4.2.3 Settlement

Settlement due to consolidation of the underlying soils at the Facility had been evaluated for a vertical expansion (B&V 2004). The density and depth of the materials that will be placed in the Facility after the Plant conversion to a FGD system will not exceed those previously evaluated. In addition, the period of time for which the underlying clay layer has been under consolidation and allowed to drain in both directions, although described as discontinuous, has likely passed its primary settlement phase. The materials being placed in the Facility will not increase the settlement values previously calculated, where the settlement of the center of the Facility was calculated for a top elevation of 252.5 feet NGVD. The settlement calculated will decrease towards the edges of the Facility. The Facility site was graded to elevation 138.5 feet NGVD

prior to placement of by-product during construction of the expansion. With a Facility crest elevation of 252.5 feet NGVD, it is estimated that the base of the Facility would settle to elevation 134.4 feet NGVD at completion of operation. With a high water table elevation of 133.2 feet NGVD, this would result in the base of the center of the Facility above the high water table at the completion of the 50 foot vertical expansion. The separation between the by-product and the water table would be approximately one foot.

4.3 Storm Water Management

The original sedimentation basin had a total storage volume capacity of 8.7 acre-feet between elevation 135.0 and elevation 130.5. In 1992, additional storage capacity was obtained by enlarging the sedimentation basin during the site expansion by constructing an addition to the south end of the existing basin. The current configuration of the sedimentation basin provides approximately 16 acre-feet of storage capacity between elevations 130 and 135.

The Facility perimeter ditch consists of a soil cement lined flat bottom trapezoidal section. The ditch will serve to collect runoff from the active Facility cells as they are developed. The soil-cement will act as a liner, facilitate cleanout by Facility equipment, and improve ditch flow. This flow will be directed to the enlarged sedimentation basin.

The existing sedimentation basin has been enlarged to handle the calculated volume of the active area runoff. The basin was enlarged to the south as far as the existing haul road, and to the east to meet the required storage capacity. The new addition is lined with soil cement in a similar manner as the existing basin.

Additional stormwater management details are provided in the Run-On and Run-Off Control System Plan (Golder 2016a) for the Facility.

4.4 Transport

Transport of by-product is along the existing roadway along the south toe of the Facility and ramps within the Facility. Drainage from the roadway is directed to a soil cement lined perimeter ditch that flows into the sedimentation basin.

5.0 STORAGE FACILITY DEVELOPMENT

5.1 General

The Facility will maintain operational hours similar to those of the Plant. The materials generated by the Plant will be transported, stockpiled, hauled off-site (material being removed from on-site for beneficial use), or placed on-site for long term storage or disposal. The appropriate space required for these activities can be found within the limits of the Facility. The materials will be managed separately within the Facility to preserve the possibility of future reclamation.

The expanded Facility area for material storage will proceed in four stages. Each stage will be constructed to a depth of material of approximately 30 feet. Both stage 1 and stage 2 development will be constructed in two cells. Stages 3 and 4 will be constructed in one cell each. The cells for Stages 1 and 2 will have an average storage capacity of approximately 573,000 cubic yards. Stage 3 has a storage capacity of approximately 350,000 cubic yards. Stage 4 has a storage capacity of approximately 340,500 cubic yards. These volumes were calculated by Black & Veatch (2004). The volume of Stage 4 includes the filling of the access ramps. The combined capacity of Stages 3 and 4 is calculated to be reached by 2025.

5.2 Active Cell Management

This section presents the operational practices that will be utilized to handle the scenarios that may develop when managing the materials at the Facility. For Bottom Ash, Fly Ash, and Gypsum, considerations are necessary for allowing the material to be stored separately and possibly reclaimed in the future. For Secondary Materials, permanent on- site disposal is required.

5.2.1 Operational Considerations

The materials are generated at various locations at the Plant. Under most circumstances, the materials will not be placed in the Facility if they are going to be transported off-site for beneficial use. The following methods are to be used when the materials are being placed in the Facility for long term storage. Material will be placed in 18 to 24 inch thick lifts and compacted. A proctor is performed at the produced moisture content and the density is then determined in the field with a nuclear density gauge. The compaction goal is to achieve 95% of the standard proctor value.

Fly Ash, Bottom Ash & Gypsum

- Transport: Trucks will deliver the materials to be placed from on-site locations to the active areas of the Facility.
- Placement: Since each material is separate at the generation point, each material will arrive as a separate stream and be directed to a designated area in the active cell to maintain material segregation. The materials will be placed apart from one another to the fullest extent possible to preserve future reclamation opportunities.
- Reclaim: The stockpiles of reclaimable material will remain accessible to a front- end loader which can be used to reload the material for beneficial use projects.

- Disposal or Long Term Storage: If it is determined that the material will never be marketed, the material will be sent to the Facility for disposal. Disposal is permanent placement of the material in the Facility because there is no potential beneficial use opportunity in the future. Long term storage is placement of the material in the Facility that is available for beneficial use in the future and may be reclaimed based on market demand. Those stockpiles will be incorporated into the Facility by spreading the material with a dozer and compacted to conserve airspace.
- Cover: Due to the non-putrescible nature of the material, there are no vector or odor issues, and therefore, no daily or intermediate soil cover is used.

Secondary Materials

Secondary materials will be handled by the following methods for being placed in the Facility for disposal.

- Transport: - Vacuum Trucks, PWTs storage containers, or PWW Pond dredging will deliver the materials from on-site locations to be placed in the active areas of the Facility.
- Placement: - Construction of a temporary material holding basin on the stack-out pad to be used for drying material prior to placement in the storage facility. The walls will be constructed in a height sufficient to contain the sludge at minimum 2 feet above the material level.
 - Dewatering these secondary materials placed in these temporary basins will be by evaporation. When necessary, excess water from these ponds would be pumped to the process wastewater ponds.
 - Once the material is dry enough to handle, it will be mixed with fly ash and/or gypsum using a front-end loader.
 - The dried material, including most of the temporary pond, will be placed in the Storage Facility.
 - The placement of secondary materials will be recorded on the daily graphs and will be kept in a file for future reference.
 - Cover: - Due to the non-putrescible nature of the material, there are no vector or odor issues, and therefore, no daily or intermediate soil cover is used.

5.2.2 Sequencing

Sequencing for the Facility will follow the previously approved plan, with the possible exception of the exterior slopes for gypsum, as calculated in Section 4 of this document.

Stage 1 Cell 1

The first cell of the initial stage has reached capacity. It was constructed at the north end of the enclosed coal train loop immediately east of the existing Phase I Facility. Material placement in the cell began in the northwest corner of the cell and progressed in horizontal lifts to the southeast corner. The horizontal lifts were sloped to the east at a 0.5 percent grade to promote drainage. Runoff was directed to the perimeter ditch along the north and east sides and toward the diversion berm along the south perimeter. As progress dictated, a ramp was constructed at the southeast corner of the cell to reach the final elevation of approximately 170. The ramp was constructed at a maximum grade of 6 percent.

An intermediate cover of topsoil was placed when the cell reached final elevation of 170 feet. The 3H:1V side slopes was covered with the soil and a portion of the perimeter ditch filled and regraded as shown as the Stage 1 Cell 1 drawings to divert the clean water runoff to Fish Lake. **This cell is presently filled.**

Stage 1 Cell 1 development is shown on the following drawings (B&V 1991):

<u>Drawing No.</u>	<u>Title</u>
17757-S1C1-1	Stabilized Sludge Landfill Expansion Stage 1, Cell 1 - SHT 1
17757-S1C1-3	Stabilized Sludge Landfill Expansion Stage 1, Cell 1 - SHT 3

Stage 1 Cell 2

Stage 1 Cell 2 has reached capacity, and was constructed by placing stabilized sludge atop the south end of the old phosphate pit bounded by the rail loop on the south and east. In addition, stabilized sludge was placed along the east side slope of Phase I Facility and on the bench at elevation 155 feet in the southwest corner of the area.

Prior to the start-up of Stage 1 Cell 2, the clean water diversion drain was plugged. The plugging consisted of placing a grout filled fabric-formed bag in the drain outlet and pumping sand cement grout fill into the remainder of the drain. A culvert placed in the perimeter ditch under the haul road for Stage 1 Cell 1 was relocated to the west when the ramp is required for access to the increasing elevation of the cell. The perimeter ditch around Stage 1 Cell 1 was regraded to divert clean water to Fish Lake. Topsoil on the bench of the existing Phase I Facility was stripped and stockpiled as development of the new cell proceeded in that direction. Surface drainage from the active Facility area was directed to the perimeter ditch. Surface drainage from the Phase I bench area was directed to the perimeter ditch along the northwest toe of the side slope for the access ramp. This cell is presently filled.

Stage 1 Cell 2 development is shown on the following drawings (B&V 1991):

<u>Drawing No.</u>	<u>Title</u>
17757-S1C2-1	Stabilized Sludge Landfill Expansion Stage 1, Cell 2 - SHT 1
17757-S1C2-2	Stabilized Sludge Landfill Expansion Stage 1, Cell 2 - SHT 2
17757-S1C2-3	Stabilized Sludge Landfill Expansion Stage 1, Cell 2 - SHT 3

Stage 2 Cell 1

The initial cell of second stage development has reached capacity, which consisted of placing the stabilized sludge atop the previous Stage 1 Cell 1. In addition the material was placed on top of the existing northwest corner of the Phase I Facility from elevation 170 feet to elevation 200 feet.

At elevation 170 feet, a bench was incorporated to facilitate the construction of a perimeter ditch designed to collect active area runoff and divert it into the main soil cement lined perimeter ditch at approximate elevation 135 feet. Along the south side of the cell and along the west toe of the access ramp, a diversion berm was constructed to separate active area runoff from the clean water runoff of Stage 1 Cell 1.

Development of the cell proceeded from the northwest corner to the southeast corner. Again, as in the development of the first stage cell, a ramp was constructed at the southeast corner of the cell to reach a

final elevation of 195 feet. The ramp constructed in association with Stage 1 Cell 2 was utilized to access the initial and final placement of material into this cell. **This cell is presently filled.**

An intermediate cover of topsoil was placed when the cell reached a final elevation of 170 feet. The 3H:1V side slopes were covered with the soil and a portion of the perimeter ditch filled and regraded to divert the clean water runoff to Fish Lake.

Stage 2 Cell 1 development is shown on the following drawings (B&V 1991):

<u>Drawing No.</u>	<u>Title</u>
17757-S2C1-1	Stabilized Sludge Landfill Expansion Stage 2, Cell 1 - SHT 1
17757-S2C1-3	Stabilized Sludge Landfill Expansion Stage 2, Cell 1 - SHT 3

Stage 2 Cell 2

Development of this cell is currently underway, and consists of placing stabilized sludge on top of the previous Stage 1 Cell 2 area from elevation 170 feet to elevation 200 feet. Again, as in Stage 2 Cell 1, a perimeter bench drain will be constructed at approximate elevation 170 feet. In addition, a slope drain channel, constructed with 8 inch uniform fabric form liner or equivalent, will be placed along the west slope. This channel will initially direct active area runoff from the perimeter bench drain and the active storage area to the sedimentation basin. Temporary diversion berms and temporary slope drain channels may be used to segregate contact and non-contact stormwater flows as needed. As the height of this cell is completed to approximately elevation 200 feet, the slope drain channel will be extended upward from elevation 170 feet to the final elevation. **This cell is presently in use.**

Similar to the current plant practice, the three horizontal to one vertical side slopes will be covered with the cover soil and a portion of the perimeter ditch filled and regraded to divert the clean water runoff to Fish Lake when the cell has reached final elevation of 200 feet.

Stage 2 Cell 2 development is shown on the following drawings (B&V 1991):

<u>Drawing No.</u>	<u>Title</u>
17757-S2C2-1	Stabilized Sludge Landfill Expansion Stage 2, Cell 2 - SHT 1
17757-S2C2-2	Stabilized Sludge Landfill Expansion Stage 2, Cell 2 - SHT 2
17757-S2C2-3	Stabilized Sludge Landfill Expansion Stage 2, Cell 2 - SHT 3

Stage 3

The third stage development will consist of placing the material atop the previous Stage 2 from elevation 200 feet to elevation 225 feet NGVD. One cell will be constructed as the total active area will be less than 20 acres. The ramp from Stage 2 will be extended to the west on the north end of Stage 3 to an elevation of 225 feet. Intermediate cover soil will be placed on the exterior slopes of the ramp below elevation 200 feet. Development of the Stage will proceed from the northwest corner of the stage south and east. The active area of this stage is less than 20 acres.

Again, as in Stage 2, a perimeter bench drain will be constructed at approximate elevation 200 feet. In addition a slope drain channel, constructed with 8 inch uniform fabric form liner or equivalent, will be placed along the south slope of Stages 1 and 2. This channel will initially direct active area runoff from the perimeter bench drain and the active storage area to the sedimentation basin. In addition runoff from the closed portions of Stages 1 and 2 and the intermediate closure of the access ramp will be diverted from the sedimentation pond and directed to Fish Lake. Temporary diversion berms and temporary slope drain channels may be used to segregate contact and non-contact stormwater flows as needed.

Similar to the current plant practice, the final closure will be placed on the Stage 3 west slope when the stage has reached final elevation of 225 feet. The three horizontal to one vertical side slopes will be covered with the cover soil and a portion of the perimeter ditch filled and regraded as shown as the Stage 3 drawings to divert the clean water runoff to Fish Lake.

Stage 3 development is shown on the following drawings (B&V 2004):

<u>Drawing No.</u>	<u>Title</u>
136614-S3-1	Stabilized Sludge Landfill Expansion Stage 3- SHT 1

Stage 4

Development of this stage will consist of placing material on top of the previous Stage 3 from elevation 225 to elevation 250. The stage active area is less than 20 acres. The cell will be filled from the north to south with the solids placed on a slope no steeper than 4 horizontal to 1 vertical. Again, as in Stage 3, a perimeter bench drain will be constructed at approximate elevation 225 feet. In addition, a slope drain channel, constructed with 8 inch uniform fabric form liner or equivalent, will be placed along both the north and southeast slopes of Stage 3. This channel will initially direct active area runoff from the perimeter bench drain and the active storage area to the sedimentation basin. Storm water runoff from the closed west slope of Stage 3 will be directed by two new channels on the west side of the Stage 2 slopes to Fish Lake. Temporary diversion berms and temporary slope drain channels may be used to segregate contact and non-contact stormwater flows as needed.

As Stage 4 is brought to final closure, the access ramp will be filled and the side slopes dressed and covered with the soil closure material. The culvert previously placed in the soil cement lined perimeter ditch will be removed.

Stage 4 development is shown on the following drawings (B&V 2004):

<u>Drawing No.</u>	<u>Title</u>
136614-S4-1	Stabilized Sludge Landfill Expansion Stage 4 - SHT 1

If Stages 3 and 4 entirely receive gypsum, the exterior slopes will be modified to 5.5H:1V, while continuing to follow the remaining sequencing operations.

5.3 Operational Controls

5.3.1 Personnel

The Facility will be managed, operated, and maintained by personnel that are trained in the operations of the Facility.

Responsibilities of the Owner

- Determines the operational requirements and maintenance needs of the Facility.
- Implements this Operations Manual for the Facility.
- Conduct daily inspections of Facility, including workplace and general conditions of the surrounding area.

5.3.2 Emergency Preparedness and Response

The latest revision of the Emergency Response Action Plan (LE 2015)) for the Facility will be followed in the event of an emergency. Due to changes in security at the station, all emergencies are to be reported to the control room. The control room will coordinate with outside emergency response agencies and with the station security to allow access. The phone number for the Plant Control Room is (863) 834-6681.

5.3.3 Equipment and Operational Procedures

Where appropriate, equipment will be fitted with safety cabs, fire extinguishers, and radio communication equipment. The radio equipment and telephone service will also be located in offices on-site.

COL's administrative offices provide shelter for employees during inclement weather. The offices include potable water, sanitary facilities, emergency first-aid supplies, and electricity.

COL operators and the following equipment is provided for the Facility:

- Front-End Loader.
- Dump Truck(s).
- Dozer.
- Water truck

5.3.4 Traffic Control

The primary entrance into the Facility will continue to be from the north, where the material is transferred from the stack-out pad using front-end loaders, and transported to the Facility using dump trucks. As the dump truck end dumps the material, a dozer spreads and compacts the material. There is no other traffic in the vicinity of the material handling vehicles.

Access to the Facility is controlled by a lockable gates and manned guard station. Security will be maintained by locking the entrance gates during the times the Facility is not operating.

5.3.5 Environmental Controls

Stormwater Management

Management of stormwater and leachate for the Facility, as previously approved by FDEP, and will continue with careful operations at the working face. Stormwater will be diverted from active handling areas through the use of berms, swales, and ditches, and be directed to the western perimeter, where it can be collected in the Facility's sedimentation basin. Stormwater runoff does not leave the Facility in an uncontrolled manner.

During operation of the Facility, all active area runoff will be directed to the enlarged sedimentation basin for containment prior to being pumped to the process waste water ponds. As the development of the Facility progresses, clean runoff from the completed inactive areas will continue to be directed to Fish Lake. By separating the active area runoff from the clean water runoff, the impact on the existing treatment facilities will be minimized. It is anticipated that at any one time during the cell development, the active area runoff will be held to 20 acres.

The present pumping and treatment facilities capacity will handle the expected average flows that may occur during operation. Using a 10 year 24 hour design storm having a total rainfall of 6.6 inches (Main 1981), runoff entering the sedimentation basin from the design storm during the operation of any active cell is calculated to be 2.9 million gallons. Based on the present average daily excess capacity in the water treatment facility of 300 gpm, this flow could be treated and discharged in 6 to 7 days, if not used in the plant water system.

Direct discharge from the stormwater that comes in contact with the materials being managed at the Facility into surrounding surface waters is prohibited.

Eroded material from the side-slopes will be collected within the limits of the property.

Components of the stormwater management systems will be routinely inspected by COL personal. Inspections include visually observing drainage channels, surface impoundment conditions, pipes, structures, and pump stations. As necessary, COL will conduct maintenance and cleaning operations on the stormwater management system components.

Leachate

The materials being managed on-site will be stored over the existing compacted and stabilized pozzolanic material placed at the Facility, which is approximately 70 feet thick, and has a very low saturated hydraulic conductivity. Liquids within the materials being stored at the Facility will be controlled through minimized infiltration from the low permeability of the underlying material. In addition, the Facility incorporates a perimeter conveyance swale near the edge of the southern slopes for controlling contact stormwater. The swale collects contact stormwater runoff from the Facility to convey it in a controlled manner into the existing stormwater sedimentation basin for proper treatment before being discharged from the Facility. Leachability

analysis (Golder 2002) by the SPLP method were previously provided to FDEP in correspondence dated on June 6, 2002 under cover letter "Lakeland Electric – C.D. McIntosh, Jr. Power Plant, Polk County Consent Order OGC Case #01-1498." .

Fugitive Dust Control

The Facility transportation and placement operations will be performed to minimize the generation of fugitive dust. The fugitive dust control measures utilized by the facility are outlined in the CCR Fugitive Dust Control Plan (LE 2016).

5.3.6 Record Keeping and Submittals

COL will maintain monthly capacity reports, and submit information to the FDEP if requested. COL will furnish all inspection records or copies thereof and plans relative to operations of the Facility as requested by the FDEP. All monitoring information, maintenance records, weight records and copies of all reports will be maintained at Facility.

Copies of the Conditions of Certification, Conditions of Clarification, design drawings, Operator certification, groundwater monitoring plan, and sampling results will also be maintained at Facility.

The Operations Manual will be kept at the Facility and shall be accessible to the COL Facility Operator, Environmental Coordinator, or COL designated personnel. The Operations Manual will be substantially complied with at all times by COL and shall be revised if operational procedures change. Revisions will be subject to review and approval by the FDEP prior to implementation.

6.0 FINAL CLOSURE

6.1 General

The filled Facility stage will be closed to minimize infiltration of rainfall into the stored materials, and to prevent erosion of the Facility. The closure operations will be performed progressively as the stages are filled as monitored and determined by the Owner. Closure of the Facility will be performed in accordance with the Closure Plan (Golder 2016b).

The following drawings provide the final Facility grades (B&V 2004):

<u>Drawing No.</u>	<u>Title</u>
133614-FC-4	Stabilized Sludge Landfill Expansion Final Closure - SHT 1
133614-FC-5	Stabilized Sludge Landfill Expansion Final Closure - SHT 2

6.2 Final Storm Water Management

After closure of the Facility, the perimeter ditch and the perimeter bench drains shall be graded to ensure clean water flows are diverted directly into Fish Lake as outlined in the Run-On and Run-Off Control System Plan (Golder 2016a).

6.3 Monitoring

Groundwater monitoring of the Facility will continue in accordance with Attachment D of the Facility's Conditions of Certification (FDEP 2013) as well as in accordance with the CCR groundwater monitoring requirements set forth in 40 CFR §257.90 through §257.95.

7.0 REFERENCES

Black & Veatch (B&V). 1991. Conceptual Design Report Stabilized Sludge Landfill Expansion, C.D. McIntosh Power Plant, dated March. B&V Project 17757.

Black & Veatch (B&V). 2004. Design Report Vertical Expansion Existing Combustion By-Products Storage Facility, C.D. McIntosh Power Plant, dated February 20. B&V Project 136614.

Chas T. Main, Inc (Main). 1981. Flue Gas Desulfurization Sludge Landfill, C.D. McIntosh Jr. Power Plant, Unit No. 3, dated June 19. CT Main Project 3297-2-1318.

Florida Department of Environmental Protection (FDEP). 2001. Letter to Lakeland Electric, Ms. Farzie Shelton. "RE: Request for Authorization to Dispose of Ash and Sludge, Submittal of June 7, 2001, Attachment #3", Dated July 17.

Florida Department of Environmental Protection (FDEP). 2013. Conditions of Certification, City of Lakeland C.D. McIntosh, Jr. Power Plant Units 3 & 5, dated March 6. PA 74-06R

Golder Associates Inc. (Golder). 2002. Materials Characterization Report, McIntosh Power Plant, Lakeland, Florida, dated June. Golder Project 013-7674.

Golder Associates Inc. (Golder). 2016b. Closure Plan, Lakeland Electric – C.D. McIntosh Power Plant, Byproduct Storage Area, dated October 12. Golder Project 15-45454.3.

Golder Associates Inc (Golder). 2016c. Post-Closure Care Plan, Lakeland Electric – C.D. McIntosh Power Plant, Byproduct Storage Area, dated October 12. Golder Project 15-45454.3.

Golder Associates Inc. (Golder). 2016a. Run-on and Run-Off Control System Plan, Lakeland Electric – C.D. McIntosh Power Plant, Byproduct Storage Area, dated October 10. Golder Project 15-45454.1.

Lakeland Electric (LE). 2015. Emergency Response Action Plan, Revision #6.

Lakeland Electric (LE). 2016. McIntosh Power Plant Coal Combustion Residuals Fugitive Dust Control Plan, dated February 10.

Stone & Webster, Inc (S&W). 2005. Design Report, City of Lakeland, McIntosh Power Plant Unit 3, FGD System, Forced Oxidation Conversion Project, dated December 19. S&W Project 11492703.